

IN THE DISTRICT COURT OF THE VIRGIN ISLANDS  
DIVISION OF ST. CROIX

UNITED STATES OF AMERICA, and	)	
UNITED STATES VIRGIN ISLANDS	)	
	)	
	)	Civ. No. 1:11-cv-00006
Plaintiffs,	)	
v.	)	
	)	
HOVENSA L.L.C.	)	
	)	
	)	
Defendant.	)	
	)	

**FIRST MODIFICATION OF THE CONSENT DECREE**

WHEREAS, the United States of America (“United States”), the United States Virgin Islands (“Virgin Islands”), and HOVENSA L.L.C. (“HOVENSA”) are parties to a Consent Decree entered by this Court on June 7, 2011 in the above-captioned matter (Civ. No. 1:11-cv-00006, Doc. 6).

WHEREAS, the United States, the Virgin Islands, HOVENSA, Limetree Bay Terminals, LLC, Limetree Bay Refining, LLC, and the Environmental Response Trust (“ERT”) are parties to this first modification of the Consent Decree (“First Modification”).

WHEREAS, HOVENSA idled the refinery and terminal operations in 2012 and 2015, respectively, and filed for bankruptcy on September 15, 2015 in the United States District Court for the District of the Virgin Islands, Bankruptcy Division (the “Bankruptcy Court”).

WHEREAS, on December 1, 2015, the Bankruptcy Court entered an Order (Case No. 1:15-bk-10003-MFW, Doc. 394) approving the sale of certain refining and terminal assets owned by HOVENSA to Limetree Bay Terminals, LLC pursuant to the terms of the Amended and Restated Asset Purchase Agreement in the form appearing as Doc. 528-1 in Case No. 1:15-bk-10003-MFW (“Final APA”).

WHEREAS, on January 4, 2016, the sale of certain refining and terminal assets to Limetree Bay Terminals, LLC closed.

WHEREAS, HOVENSA represented in the Final APA that it was in material compliance with the Consent Decree.

WHEREAS, pursuant to the Final APA, Limetree Bay Terminals, LLC, in part, agreed to “promptly ... use commercially reasonable efforts..., in cooperation with the applicable Governmental Entities, to ... make the terms, conditions, obligations and liabilities of the Consent Decree applicable to the Purchased Assets, including [Limetree Bay Terminals, LLC] and [HOVENSA] executing a modification to the Consent Decree pursuant to which [Limetree Bay Terminals, LLC] shall assume the terms, conditions, obligations and liabilities of [HOVENSA] as they relate to the Purchased Assets under the Consent Decree and [HOVENSA] shall be released from such terms, conditions, obligations and liabilities (the “Limited Consent Decree Modification”) ....”

WHEREAS, pursuant to the Final APA, “[i]f, despite [Limetree Bay Terminals, LLC’s] and [HOVENSA’s] respective efforts, the applicable Governmental Entities do not agree to the Limited Consent Decree Modification, regardless of whether such failure to agree occurs before or after the Closing, [Limetree Bay Terminals, LLC] and [HOVENSA] promptly thereafter shall ... cooperate and take, or cause to be taken, all steps required under the Consent Decree to make the terms, conditions, obligations and liabilities of the Consent Decree applicable to [Limetree Bay Terminals, LLC], including (A) [Limetree Bay Terminals, LLC] and [HOVENSA] executing a modification to the Consent Decree pursuant to which [Limetree Bay Terminals, LLC] shall assume the terms, conditions, obligations and liabilities of [HOVENSA] under the Consent Decree and [HOVENSA] shall be released from such terms, conditions, obligations and

liabilities (the “Consent Decree Modification”) ....”

WHEREAS, the applicable Governmental Entities, HOVENSA and Limetree Bay Terminals, LLC did not agree to a Limited Consent Decree Modification.

WHEREAS, “on the terms and subject to the conditions of” the Final APA, Limetree Bay Terminals, LLC agreed to assume all of HOVENSA’s Liabilities, other than the Excluded Liabilities, “under the Consent Decree in connection with the Purchased Assets arising out of or relating to any act, omission, circumstances or other Event occurring after the Closing” (as each term is defined in the Final APA).

WHEREAS, Limetree Bay Terminals, LLC’s agreement to enter into a Consent Decree Modification does not alter the rights and obligations of the parties to the Final APA.

WHEREAS, Paragraph 7 of the Consent Decree required HOVENSA to condition any transfer, in whole or in part, of the ownership or operation of the Refinery “upon the execution by the transferee of a modification to this Consent Decree, which makes the terms and conditions of this Consent Decree applicable to the transferee.”

WHEREAS, pursuant to the Plan of Liquidation and the ERT Agreement, the ERT assumed HOVENSA’s Consent Decree obligations under and relating to Section IX.A (Territorial Supplemental Environmental Project (“TSEP(s)”) and Section IX.B. (VIWAPA Emissions Monitoring Assistance).

WHEREAS, on February 17, 2016, groundwater and other remediation systems, including the Vapor Enhanced Recovery Units 1 and 2 (“VER-1” and “VER-2”), were transferred from HOVENSA to the ERT in accordance with the Plan of Liquidation.

WHEREAS, on October 11, 2012, HOVENSA submitted a Notice of Dismantlement of VER-1 in compliance with Section 204-31 of the Rules and Regulations of the Virgin Islands Air

Pollution Control Act and section 2.4.7.1 of HOVENSA's Title V Permit.

WHEREAS, Limetree Bay submitted to the Virgin Islands Department of Planning and Natural Resources ("VIDPNR") and/or EPA, by letters dated February 28, 2017, June 9, 2017, and May 30, 2019, requests to modify its Title V and non-title V permits to reflect the permanent Shutdown of certain combustion devices to satisfy the requirements of Section V.F of the Consent Decree to reduce NOx emissions by 4,744 tons per year.

WHEREAS, except to the extent set forth in the preceding WHEREAS clause, neither HOVENSA nor Limetree Bay has permanently Shutdown and surrendered permits for the Refinery or portions of the Refinery to satisfy the requirements of the Consent Decree in the manner provided in Paragraph 229 (Effect of Shutdown) of the Consent Decree.

WHEREAS, on or before April 24, 2018, Limetree Bay notified the Virgin Islands of the intent to restart Refinery Operations at the Refinery.

WHEREAS, on April 24, 2018, an affiliate of Limetree Bay Terminals, LLC formed a new limited liability company under the laws of the Virgin Islands, Limetree Bay Refining, LLC.

WHEREAS, in July 2018, Limetree Bay Terminals, LLC entered into the Amended and Restated Terminal Operating Agreement with the Virgin Islands, in which Limetree Bay Terminals, LLC, in part, agreed to "use commercially reasonable efforts to ... add [itself] as a named party defendant to the ... Consent Decree and modify the ... Consent Decree to restart Refinery Operations." (Amended and Restated Terminal Operating Agreement by and Among the Government of the Virgin Islands and Limetree Bay Terminals, LLC, Section 4.1(B)).

WHEREAS, also in July 2018, Limetree Bay Refining, LLC entered into the Refinery Operating Agreement with the Virgin Islands, in which Limetree Bay Refining, LLC, in part, agreed to "use commercially reasonable efforts to ... add [itself] as a named party defendant to

the ... Consent Decree and modify the ... Consent Decree to restart Refinery Operations.” (Refinery Operating Agreement by and Among the Government of the Virgin Islands and Limetree Bay Refining, LLC, Section 4.1(B)).

WHEREAS, on May 28, 2020, HOVENSA certified to the United States and the Virgin Islands that it had taken the actions described in Appendix Q (“HOVENSA Certification”) in completion and satisfaction of the Consent Decree requirements identified therein as of June 30, 2019.

WHEREAS, due to the bankruptcy, the Parties desire to capture the certification of HOVENSA as to the Consent Decree obligations completed by HOVENSA for purposes of satisfying the requirement to certify completion for purposes of termination in accordance with Paragraphs 231 and 232 of the Consent Decree and to identify the Consent Decree obligations that have not yet been completed.

WHEREAS, on November 30, 2018, Limetree Bay Terminals, LLC, executed a Bill of Sale transferring in whole or in part certain Refinery assets that are subject to the requirements of the Consent Decree to Limetree Bay Refining, LLC.

WHEREAS, the United States, the Virgin Islands, HOVENSA, Limetree Bay Terminals, LLC, Limetree Bay Refining, LLC, and the ERT have reached an agreement on the First Modification as set forth herein, and, pursuant to Paragraphs 7 and 228 (Modification) of the Consent Decree, seek to modify the Consent Decree in accordance herewith.

WHEREAS, the United States, the Virgin Islands, HOVENSA, Limetree Bay Terminals, LLC, Limetree Bay Refining, LLC, the ERT, and this Court, by entering the First Modification, find that the First Modification has been negotiated in good faith and at arm’s length; that the First Modification is fair, reasonable, and in the public interest.

WHEREAS, the United States, the Virgin Islands, HOVENSA, Limetree Bay Terminals, LLC, Limetree Bay Refining, LLC, and the ERT agree and acknowledge that final approval by the United States and entry of the First Modification is subject to the procedures set forth in 28 C.F.R. § 50.7, which provides for notice of the First Modification in the Federal Register, an opportunity for public comment, and the right of the United States to withdraw or withhold consent if the comments disclose facts or considerations that indicate that the First Modification is inappropriate, improper or inadequate.

NOW THEREFORE, upon the consent and agreement of the United States, the Virgin Islands, HOVENSA, Limetree Bay Terminals, LLC, Limetree Bay Refining, LLC, and the ERT, it is hereby ORDERED, ADJUDGED, and DECREED as follows:

**1.** The terms and conditions of the Consent Decree are applicable to Limetree Bay Terminals, LLC, Limetree Bay Refining, LLC, and their respective successors or assigns, except as otherwise specifically set forth herein.

**2.** The terms and conditions of the Consent Decree that apply to VER-1 and VER-2, and any obligations in Parts X (Reporting and Recordkeeping), and XIX (Termination) that relate to VER-1 and VER-2, are applicable to the ERT. All requirements of this Consent Decree that apply to VER-1 are satisfied pursuant to Paragraph 229.

**3.** As of the Date of Entry of the First Modification, the obligations under and relating to Section IX.A and B of the Consent Decree, including the obligation to disburse funds from the TSEP Escrow Account for any TSEP approved by VIDPNR, to disburse funds earmarked for the VIWAPA Emissions Monitoring Assistance Program, and any obligations in Part X (Reporting and Recordkeeping) that relate to the TSEP Escrow Account or to the

VIWAPA Emissions Monitoring Assistance Program are transferred to the ERT as specified in the First Modification.

4. Limetree Bay Terminals, LLC, Limetree Bay Refining, LLC, and the ERT shall be added as Parties to the Consent Decree.

5. In accordance with Paragraphs 1-4 of the First Modification, effective upon the Date of Entry of the First Modification:

a. Limetree Bay Refining, LLC and Limetree Bay Terminals, LLC shall be substituted for HOVENSA as the Defendant, for all provisions of the Consent Decree, including all rights, liabilities and obligations of HOVENSA, except as set forth in this First Modification.

b. The ERT shall be substituted for HOVENSA as the Defendant only to the extent any obligation set forth in the Consent Decree relates to either VER-1 or VER-2 or Part IX (Territorial Supplemental Environmental Project).

6. Limetree Bay shall retain any and all records that it received from HOVENSA related to the implementation of the requirements of the Consent Decree for the periods specified in the relevant Paragraphs of the Consent Decree along with all records required to be maintained by Limetree Bay pursuant to the First Modification. Limetree Bay is not liable for penalties for HOVENSA's failure to keep records required under the Consent Decree but will use commercially reasonable efforts to create a compliant version upon request by the United States or the Virgin Islands.

7. Limetree Bay shall not be required to make any submittal or report or take any action required by the Consent Decree if a prior submittal, report, or action by HOVENSA fully satisfied that same requirement of the Consent Decree.

8. As of the Date of Entry of the First Modification, HOVENSA shall be released from the obligations and liabilities under the Consent Decree.

9. Nothing in the First Modification shall affect any obligations that the parties to the First Modification may have to one another under any agreement or court order including, without limitation, the Order Granting Final Approval of Disclosure Statement and Confirming Chapter 11 Plan of Liquidation Pursuant to Chapter 11 of the Bankruptcy Code (In re HOVENSA L.L.C., Chapter 11 Case No. 1:15-bk-10003-MFW, Doc. No. 572) (the “Confirmation Order”), except as provided under the Consent Decree. Nothing in the First Modification shall affect any of the settlement, release, or injunction provisions set forth in the Plan of Liquidation or the Confirmation Order, except as provided under the Consent Decree. Nothing in the First Modification shall affect any rights obligations, or liabilities that the parties to the Final APA have to one another under the Final APA.

10. Except as specifically provided in the First Modification, the definitions in the Consent Decree shall continue to apply.

**11. Replace the following definitions in Paragraph 10:**

E. “Acid Gas Flaring Device” or “AG Flaring Device” shall mean any device that is used for the purpose of combusting Acid Gas and/or Sour Water Stripper Gas, except facilities in which gases are combusted to produce sulfur or sulfuric acid. The AG Flaring Devices are identified in Appendix D (“List of Flaring Devices Subject to NSPS Subpart Ja”). To the extent that, during the duration of the Consent Decree, the Refinery utilizes AG Flaring Devices other than those specified in Appendix D for the purpose of combusting Acid Gas and/or Sour Water Stripper Gas, those AG Flaring Devices shall be covered under this Consent Decree.



AA. “HOVENSA” shall mean HOVENSA L.L.C.

CC. “Hydrocarbon Flaring Device” or “HC Flaring Device” shall mean a flare used to safely control (through combustion) any excess volume of a refinery-generated gas other than Acid Gas and/or Sour Water Stripper Gas and/or Tail Gas. The HC Flaring Devices are identified in Appendix D (“List of Flaring Devices Subject to NSPS Subpart Ja”). To the extent that, during the duration of the Consent Decree, the Refinery utilizes HC Flaring Devices other than those specified in Appendix D for the purposes of combusting any excess volume of a refinery-generated gas other than Acid Gas and/or Sour Water Stripper Gas and/or Tail Gas, those HC Flaring Devices shall be covered under this Consent Decree.

MM. “Parties” shall mean, as of the Date of the Entry of the First Modification, the United States, the Virgin Islands, Limetree Bay Terminals, LLC, Limetree Bay Refining, LLC, and the Environmental Response Trust.

NN. “Refinery” shall mean the petroleum refining and terminal facilities in St. Croix, Virgin Islands. As of the Date of Lodging and the Date of Entry, both the petroleum refining and terminal facilities, the boundaries of which are shown in Appendix I (“Map of HOVENSA, L.L.C.”), were owned and operated by HOVENSA L.L.C. As of the Date of Lodging of the First Modification, the petroleum refining facility is owned and operated by Limetree Bay Refining, LLC, the terminal facility is owned and operated by Limetree Bay Terminals, LLC, and the boundaries of each as of the Date of Lodging of the First Modification are shown in Appendix R (“Map of Refinery”).

**12. Add the following definitions to Paragraph 10 of the Consent Decree:**

CCC. “BWON Equipment” shall mean equipment used in handling, storage, treatment, or disposal of “non-aqueous and aqueous benzene waste streams” regulated under 40 C.F.R. Part

61, Subpart FF, except that the term shall also include “affected facilities” under NSPS Subpart QQQ.

DDD. “BWON and LDAR Equipment” shall mean LDAR Equipment and BWON Equipment.

EEE. “Covered Equipment” shall include all pumps and valves, excluding pressure relief valves, in light liquid or gas/vapor service in all process units that are subject to the equipment leak provisions of 40 C.F.R. Part 60, Subparts VVa and GGGa.

FFF. “Date of Entry of the First Modification of the Consent Decree” and “Date of Entry of the First Modification” shall mean the date on which the First Modification of the Consent Decree is approved and signed by a District Court Judge for the District of the Virgin Islands and entered in the Court docket by the Clerk of the United States District Court for the District of the Virgin Islands.

GGG. “Date of Lodging of the First Modification of the Consent Decree” and “Date of Lodging of the First Modification” shall mean the date on which the First Modification of the Consent Decree is lodged with the United States District Court for the District of the Virgin Islands.

HHH. “Environmental Response Trust” or “ERT” shall mean the ERT established pursuant to the Plan of Liquidation and the ERT Agreement, which satisfied the conditions set forth in Article XI of the Plan of Liquidation and which designated Project Navigator, Ltd. as Environmental Response Trustee. On December 20, 2019, the Bankruptcy Court appointed PathForward Consulting Inc., as a successor Environmental Response Trustee. The effective date of the ERT was February 17, 2016, as provided in Case No. 1:15-10003, Doc. 625.

III. “ERT Agreement” shall mean Doc. 626-1 in Case No. 1:15-10003-MFW, United States District Court for the District of the Virgin Islands, Bankruptcy Division – St. Croix, Virgin Islands.

JJJ. “First Modification of the Consent Decree” and “First Modification” shall mean this modification of the Consent Decree, including any and all appendices attached to the First Modification.

KKK. “Idled Unit” shall mean (1) an emissions unit to which a requirement of the Consent Decree applies (including, but not limited to, the FCCU, Coker, Flaring Devices, heaters, boilers, Generating Turbines, and Compressor Engines) for which no part was operated between June 1, 2012 and at least June 1, 2019, and that is listed in Appendix K (“List of Idled Units”) hereto, and (2) Flare 7, from the time that Flare 7 is isolated and Shutdown under Paragraph 50E. An Idled Unit does not include BWON and LDAR Equipment.

LLL. “In Regulated Service” shall mean: (1) BWON Equipment with benzene-containing wastes regulated under 40 C.F.R. Part 61 Subpart FF or (2) LDAR Equipment in “light liquid” and/or “gas/vapor service” as those terms are used in Section V.R of the Consent Decree.

MMM. “In Service Unit” shall mean an emission unit to which a requirement of the Consent Decree applies that is not an Idled Unit. In Service Unit does not include BWON and LDAR Equipment.

NNN. “LDAR Equipment” shall mean each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector In Regulated Service and, for purposes of recordkeeping and reporting requirements only, compressors shall be considered LDAR Equipment, as defined in 40 C.F.R. § 60.591.

OOO. “LHE Combustion Liner System” shall mean a Lean Head End Combustion Liner system as generally described in publication GER-4211, *Gas Turbine Emissions and Control*, which were installed by Limetree Bay on GTs 7 and 8.

PPP. “Limetree Bay” shall mean Limetree Bay Terminals, LLC, Limetree Bay Refining, LLC, and their respective successors and assigns.

QQQ. “Pilot Gas” shall mean the minimum amount of gas necessary to maintain the presence of a flame for ignition of vent gases.

RRR. “Plan of Liquidation” shall mean the Debtor’s Second Amended Plan of Liquidation Pursuant to Chapter 11 of the Bankruptcy Code, Order of the United States District Court for the District of the Virgin Islands, Bankruptcy Division – St. Croix, Virgin Islands (Case No. 1:15-10003-MFW, Doc. 572-1).

SSS. “Purge Gas” shall mean the gas introduced between a Flaring Device header’s water seal and the flare tip to prevent oxygen infiltration (backflow) into the flare tip. For a Flaring Device with no water seal, the function of Purge Gas is performed by Sweep Gas, and therefore, by definition, such a Flaring Device has no Purge Gas.

TTT. “Refinery Operations” shall mean the processing of crude oil and other feedstock into refined petroleum products and the commercialization thereof.

UUU. “Restart” shall mean: (1) the change in status of BWON or LDAR Equipment from not In Regulated Service to In Regulated Service; and (2) the resumption of operation of an Idled Unit. For a fuel gas combustion device or flare, resumption of operation means combusting Fuel Gas. For an FCCU, resumption of operations means receiving feed in the unit. For an SRP, resumption of operations means introducing acid gas to the unit. For a Coker and the Coke Handling Storage and Loading Facility, resumption of operation means receiving

feed to the coker drum. For a sulfur pit, resumption of operation means when sulfur is drained to a sulfur pit.

VVV. “TSEP” shall mean the Territorial Supplemental Environmental Project(s) developed by the VIDPNR pursuant to Section IX.A of the Consent Decree.

WWW. “TSEP Escrow Account” shall mean the escrow account in which HOVENSA deposited \$4.875 million in accordance with Section IX.A of the Consent Decree and to which the ERT assumed HOVENSA’s rights and obligations pursuant to the Plan of Liquidation and the ERT Agreement.

**13. Replace Paragraph 27 with the following new Paragraph 27:**

27. By six (6) years and one month from Date of Entry, Limetree Bay shall install sufficient Qualifying Controls and have applied for emission limits from the appropriate permitting authority to achieve 3,663 tpy NO<sub>x</sub> emission reductions as determined by the summation in Paragraph 24. By six (6) years and three (3) months from Date of Entry, Limetree Bay shall provide EPA with a report showing how it satisfied the requirement of this Paragraph and Paragraph 23.

**14. Add the following new Paragraph 28A to Part V.F:**

28A. Limetree Bay represents that it (or HOVENSA) has installed sufficient qualifying controls to achieve the aggregate NO<sub>x</sub> emissions reductions of 4,744 tpy required by Paragraphs 26, 27, and 28, by permanent Shutdown and relinquishment of permits for the heaters, boilers, generating turbines and compressor engines identified in Appendix N (“Emissions Units Permanently Shutdown as of June 1, 2019”). Limetree Bay will submit the report required by Paragraph 28, certified in accordance with Paragraph 231. Provided the report submitted under Paragraph 28 demonstrates that the 4,744 tpy of NO<sub>x</sub> reductions have been achieved, Limetree

Bay is deemed to have satisfied the requirements of Section V.F and the requirements of Paragraphs 230 and 231 related to Termination, subject to EPA's review under Paragraphs 232 and 233.

**15. Replace Paragraph 36 with following new Paragraph 36:**

36. For each fuel gas combustion device that became an affected facility under NSPS Subpart Ja pursuant to the Consent Decree, entry of the First Modification shall satisfy the notice requirements of 40 C.F.R. § 60.7(a) and compliance with the relevant monitoring requirements of the Consent Decree shall satisfy the notification of initial performance test requirement of 40 C.F.R. § 60.8(a).

**16. Add the following sentence to Subparagraph 41.a:** As of the Date of Entry of the First Modification, the East Side SRP consists of two Claus Trains, #3 SRU, #4 SRU, and a tail gas treatment unit followed by incineration.

**17. Replace Paragraphs 45 and 46 with the following new Paragraphs 45 and 46:**

45. Compliance with NSPS Emissions Limits at the East Side SRP. By no later than the date of Restart of the East Side SRP, Limetree Bay shall install, at the East Side SRP, control equipment necessary to control the emissions of sulfur compounds from the East Side SRP to comply with NSPS Subparts A and Ja. Notwithstanding any provision of Limetree Bay's Title V permit (STX-TV-003-10) or any successor operating permit, Limetree Bay shall not vent tail gas from the East Side SRP to an incinerator, unless such venting complies with NSPS Subparts A and Ja.

46. [Reserved]

**18. Replace Paragraph 47 with the following new Paragraph 47:**

47. For the East Side SRP, which became an affected facility under NSPS Subpart Ja

pursuant to Section V.I, entry of the First Modification shall satisfy the notice requirements of 40 C.F.R. § 60.7(a), and compliance with the relevant monitoring requirements of this Consent Decree shall satisfy the notification of initial performance test requirement of 40 C.F.R. § 60.8(a).

**19. Replace Paragraph 49 with the following new Paragraph 49:**

49. All Flaring Devices listed in Appendix D (“List of Flaring Devices Subject to NSPS Subpart Ja”) are affected facilities, as that term is used in 40 C.F.R. Part 60, Subpart Ja, and by the dates listed in Appendix D, shall comply with the requirements of NSPS Subparts A and Ja.

**20. Replace Paragraph 50 with the following new Paragraphs 50A through 50F:**

50A. Mitigation of Flaring Emissions. Limetree Bay shall monitor and quantify all flaring emissions from the FCCU Low Pressure Flare and Flare 3 for the one-year period beginning on the date of Restart of the flare, using the following equation:

$$Mitigation\ Amount = \sum_{i=1}^n \left[ (C_{H_2S_i} - 162\ ppm\ H_2S) \times F_i \times \frac{1\ scf\ SO_2}{1\ scf\ H_2S} \times \frac{lb - moles\ SO_2}{385.3\ scf\ SO_2} \times \frac{64\ lbs\ SO_2}{lb - mole\ SO_2} \times \frac{1\ ton\ SO_2}{2000\ lbs\ SO_2} \right]$$

Where:

*Mitigation Amount* = tons of SO<sub>2</sub> emissions that result from combustion of gas in a particular flare with an H<sub>2</sub>S concentration above the 162 ppm standard and which could have been captured by a reasonably sized FGRS

*n* = each hour that is part of a three-hour rolling average in the first 365 Days after Restart of the flare where the H<sub>2</sub>S concentration in the gas flared at the particular flare exceeds the 162 ppm standard

*C<sub>H<sub>2</sub>S<sub>i</sub></sub>* = the hourly average concentration of H<sub>2</sub>S for hour *i* in the gas flared at the particular flare as measured by the H<sub>2</sub>S CEMS

*F<sub>i</sub>* = hourly average flow in scfh for hour *i* of all gas to the particular flare as measured by the flare flow meter but excluding Pilot Gas and excluding any flow above 2 times Baseload Average Flow

*Baseload Average Flow* = 90th percentile of hourly average flow in the first 365 Days after Restart of the flare of all gas to the particular flare as measured by the flare flow meter.

Limetree Bay shall mitigate the Mitigation Amount using the formula above and implementing one or more mitigation projects as specified in this Paragraph.

a. Mitigation Emissions Less Than 10 Tons. No mitigation is required if the Mitigation Amount is less than 10 tons.

b. Mitigation Emissions Above 10 Tons. If the Mitigation Amount is above 10 tons, Limetree Bay will mitigate emissions above 10 tons by implementing one or more of the mitigation projects in Appendix P (“Flaring Mitigation Projects”) in accordance with the requirements therein.

50B. Installation of Flare Gas Recovery Systems. For the FCCU Low Pressure Flare and Flare 3, Limetree Bay shall design, install, operate and maintain flare gas recovery system(s) to control all continuous and intermittent, routinely-generated refinery fuel gases (not including Purge Gas, or Pilot Gas or molecular seal gases necessary to ensure safe operation of the flares) that are combusted in the flare(s), if the quantity of gases sent to the flares exceeds the amounts specified, or if there is noncompliance with the NSPS Subpart Ja emission standard, as specified in this Paragraph.

a. First Year of Operation: Gas Quantity. The requirements of this Subparagraph 50B.a apply only during the one-year period beginning on the date of Restart of the flare.

i. FCCU Low Pressure Flare. If, during the first or second six-month successive non-overlapping block period during the first year after Restart of the FCCU Low Pressure Flare, greater than an average of 1,500,000 standard cubic feet per day (scfd) combined flow of all gases, other than hydrogen from initial



reformer restart, is sent to the FCCU Low Pressure Flare (and any flare interconnected with the FCCU Low Pressure Flare), as measured by the flare flow meter, then by not later than two years from the end of the six-month period in which the gas quantity is exceeded and the report is due under Paragraph 50C.b, Limetree Bay shall install and operate a flare gas recovery system for the FCCU Low Pressure Flare.

ii. Flare 3. If, during the first or second six-month successive non-overlapping block periods during the first year after Restart of Flare 3, greater than an average of 750,000 scfd combined flow of all gases is sent to the Flare 3, as measured by the flare flow meter, then by not later than two years from the end of the six-month block period in which the gas quantity is exceeded and the report is due under Subparagraph 50C.b, Limetree Bay shall install and operate a flare gas recovery system for Flare 3.

b. After First Year of Operations: Gas Quantity. The requirements of this Subparagraph 50B.b apply beginning with the first full Calendar Quarter after the one-year period in Subparagraph 50B.a. The first full Calendar Quarter will include all days after the first year after Restart of the flare until the end of the first full Calendar Quarter.

i. FCCU Low Pressure Flare. If, during any two successive Calendar Quarters either (a) during the second year after Restart of the FCCU Low Pressure Flare, greater than an average of 750,000 scfd combined flow of all gases, other than hydrogen from initial reformer restart, or (b) after the second year after Restart of the FCCU Low Pressure Flare, greater than an average of 500,000 scfd combined flow of all gases, other than hydrogen from initial reformer restart, is

sent to the FCCU Low Pressure Flare (including any flare interconnected with the FCCU Low Pressure Flare), as measured by the flare flow meter, then by not later than two years from the end of the second Calendar Quarter in which the gas quantity is exceeded and the report required under Subparagraph 50C.c is due, Limetree Bay shall install and operate a flare gas recovery system for the FCCU Low Pressure Flare.

ii. Flare 3. If, during any two successive Calendar Quarters after the first year after Restart of Flare 3, greater than an average of 250,000 scfd combined flow of all gases is sent to Flare 3, as measured by the flare flow meter, then by not later than two years from the end of the second Calendar Quarter in which the gas quantity is exceeded and the report required under Subparagraph 50C.c is due, Limetree Bay shall install and operate a flare gas recovery system(s) for Flare 3.

iii. Within the first six months of Restart of either Flare 3 or the FCCU Low Pressure Flare, whichever is earlier, Limetree may increase the average gas quantity for Flare 3 specified in Subparagraph 50B.b.ii from 250,000 scfd to 300,000 scfd combined flow of all gases. If Limetree exercises this option, then the average gas quantity for FCCU Low Pressure Flare specified in Subparagraph 50B.b.i shall be reduced from 750,000 scfd to 700,000 scfd during the second year of Restart of the FCCU Low Pressure Flare, and from 500,000 scfd to 450,000 scfd combined flow of all gases after the second year after Restart of the FCCU Low Pressure Flare. Within 30 Days of exercising this option, Limetree shall notify EPA and the VIDPNR, including the date on which Limetree

exercised this option, as provided in Paragraph 225 (Notice), and shall certify the notification as required by Paragraph 144.

iv. Adjustment to Gas Quantity Based on Changes in Refining

Operating Rate. The gas quantities specified in this Subparagraph 50B.b apply where the refinery's charge rate to the atmospheric crude unit(s) ("operating rate") is not more than 180,000 barrels (bbls) per day in a Calendar Quarter. If the average actual refinery operating rate is greater than 180,000 bbls per day in a Calendar Quarter, then the following gas quantities apply in lieu of the gas quantities in 50B.b.(i). and (ii).:

(1) FCCU Low Pressure Flare: (A) During the second year after Restart of the FCCU Low Pressure Flare: (750,000 scfd (or 700,000 scfd if applicable pursuant to Subparagraph 50B.b.iii)/180,000 bbls) multiplied by the actual refinery operating rate per Calendar Quarter, measured as an average combined flow of all gases, other than hydrogen from initial reformer restart, to the FCCU Low Pressure Flare in scfd in any Calendar Quarter, as measured by the flare flow meter. (B) After the second year after Restart of the FCCU Low Pressure Flare: (500,000 scfd (or 450,000 scfd if applicable pursuant to Subparagraph 50B.b.iii)/180,000 bbls) multiplied by the actual refinery operating rate per Calendar Quarter, measured as an average combined flow of all gases, other than hydrogen from initial reformer restart, to the FCCU Low Pressure Flare in scfd in any Calendar Quarter, as measured by the flare flow meter.

(2) Flare 3: Greater than (250,000 scfd (or 300,000 scfd if applicable pursuant to Subparagraph 50B.b.iii)/180,000 bbls) multiplied by the actual refinery operating rate, measured as an average combined flow of all gases to Flare 3 in scfd in any Calendar Quarter, as measured by the flare flow meter.

c. After First Year of Operations: Noncompliance. If, during any two successive Calendar Quarters there is noncompliance with the NSPS Subpart Ja H<sub>2</sub>S concentration standard in 40 C.F.R. § 60.103a(h) for greater than 5% of either flare's operating time, and greater than 10 tons of excess SO<sub>2</sub> emissions from the same flare, then by not later than 18 months from the end of the two Calendar Quarters in which both the noncompliance rate and excess SO<sub>2</sub> emissions are exceeded and the report required under Subparagraph 50C.c is due, Limetree Bay shall install and operate a flare gas recovery system(s) for the relevant flare.

50C. Monitoring and Reporting. For purposes of the requirements of Paragraphs 50A and 50B, the monitoring and reporting requirements of this Paragraph applies.

a. Monitoring. For the FCCU Low Pressure Flare and Flare 3, upon Restart of the flare, Limetree Bay shall comply with the hydrogen sulfide monitoring, sulfur monitoring and flow monitoring requirements of 40 C.F.R. § 60.107a(a)(2), (e) and (f) respectively. Prior to a Restart of a flare, an instrument for continuously monitoring and recording the H<sub>2</sub>S concentration by volume (dry basis) shall be installed, operated, calibrated and maintained pursuant to 40 C.F.R. § 60.107a(a)(2), notwithstanding any exceptions or alternate methods allowed in NSPS Subpart Ja.

i. Data from the H<sub>2</sub>S CMS generated prior to the demonstration of compliance (see Appendix L ("Exceptions For Compliance on Restart")) shall be

included for purposes of calculating Mitigation Amount during the first year of a flare's operation pursuant to Paragraph 50A, regardless of whether the flare's H<sub>2</sub>S CMS fails its Cylinder Gas Audit ("CGA") or RATA.

ii. In the event that the H<sub>2</sub>S CMS fails its CGA or RATA, then the measured values of the emissions from the flare emitted prior to the demonstration of compliance will be adjusted based on the level of inaccuracy, as demonstrated by the CGA or RATA, or the CGA or RATA and other credible evidence.

iii. The quantity of hydrogen from initial reformer restart combusted in the FCCU Low Pressure Flare shall be measured by a flow meter.

b. Recordkeeping and Reporting for First Year of Operations. Within thirty (30) days of the end of each of the six-month block periods during the first year after Restart of the flare, Limetree Bay shall submit a report containing the following information for each flare:

i. The quantity of all gases in scfd sent to each flare for the period covering the six-month block period preceding the date of the report, on both a cumulative and per-day basis;

ii. The quantity of hydrogen from initial reformer restart combusted in the FCCU Low Pressure Flare on both a cumulative and per-day basis;

iii. In the second six-month block period report, the quantity of Mitigation Amount for the period covering the two six-month block periods preceding the date of the report, provided both on a cumulative and per-day basis; and

- iv. Notification of whether the total gas quantity specified in Subparagraph 50B.a.i or a.ii has been exceeded.

Limetree Bay shall report this data to EPA and the VIDPNR as provided in Paragraph 225 (Notice), and shall certify the report as required by Paragraph 144.

c. Reporting After First Year of Operations. If the requirement to install flare gas recovery is triggered, as described in Subparagraphs 50B.b.i, 50B.b.ii, or 50B.c, then Limetree Bay shall notify EPA within thirty (30) days and provide the information in Subparagraphs (i)-(v) below. If the requirement for flare gas recovery is not triggered, then the information in Subparagraphs (i)-(v) below, for each Calendar Quarter, shall be included in the semi-annual progress reports required under Paragraph 143 beginning with the next semi-annual progress report following the first full Calendar Quarter after the first year of operations:

- i. The quantity of all gases combusted in each flare in scfd, as measured by the flare flow meter, for the period covering the Calendar Quarter preceding the date of the report, on both a cumulative and per-day basis;
- ii. The quantity of hydrogen from initial reformer restart combusted in the FCCU Low Pressure Flare;
- iii. Any adjustments to the specified gas quantity pursuant to Subparagraph 50B.b.iii, including the adjusted gas quantity, operating rate, and the change in operating rate;
- iv. The total period of noncompliance with the NSPS Subpart Ja concentration standard, expressed as a percentage of operating time and excess SO<sub>2</sub> emissions expressed as tons during the Calendar Quarter; and

v. Notification of whether the total gas quantity specified in Subparagraph 50B.b.i or b.ii has been exceeded, and/or whether the total period of noncompliance with the NSPS Subpart Ja H<sub>2</sub>S concentration standard and excess SO<sub>2</sub> emissions, specified in Subparagraph 50B.c has been exceeded.

Limetree Bay shall report this data to EPA and the VIDPNR as provided in Paragraph 225 (Notice), and shall certify the report as required by Paragraph 144.

50D. Hydrogen Sulfide Monitoring. To evaluate the potential transport of H<sub>2</sub>S to the refinery's wastewater treatment system from the use of H<sub>2</sub>S scavengers in the flare gas system(s), by no later than 90 Days after Limetree Bay begins using H<sub>2</sub>S scavenger in its flare gas system(s), Limetree Bay shall monitor H<sub>2</sub>S emissions from the wastewater treatment system, as follows:

a. Limetree Bay shall install three temporary H<sub>2</sub>S monitors at fixed locations around the dissolved air flotation (DAF) unit and the API separator on the East Side, and one temporary H<sub>2</sub>S monitor at a fixed location near the API separator on the West Side (if Sulfix is used on Flare 3), as specified in Appendix S ("Map of H<sub>2</sub>S Monitoring Locations"), to continuously monitor H<sub>2</sub>S emissions from the DAF and API separators.

b. If Limetree Bay stores slop oil in fixed roof tanks, Limetree Bay shall install a temporary H<sub>2</sub>S monitor at a fixed location near such tank.

c. Limetree Bay shall use temporary H<sub>2</sub>S monitors that are designed to meet the following criteria:

- i. Utilizes an electrochemical sensor;
- ii. A response time of 15 seconds or less;
- iii. A lower detection limit (sensitivity) of at least 0.5 ppm;

- iv. A resolution of 0.1 ppm and an accuracy of  $\pm 5\%$  over its calibrated range of at least 0-100 ppm;
  - v. An accuracy of  $\pm 0.05$  ppm at 1 ppm ( $\pm 5\%$ );
  - vi. A built-in datalogging function for data collection and analysis;
- and
- vii. A low temperature drift (less than 0.1 ppm for the zero reading) and high selectivity for H<sub>2</sub>S in the presence of interfering gases (such as sulfur dioxide, nitrogen dioxide, and hydrocarbons).

d. Duration. The temporary H<sub>2</sub>S monitors shall be operated for a period of not less than two years.

i. If H<sub>2</sub>S is detected at levels exceeding the OSHA permissible exposure limit of 10 ppm (15 mg/m<sup>3</sup>) at any monitoring location over an 8-hour time weighted average (see 29 C.F.R. § 1910.1000(d)) equal to or more than 5% of the time during any rolling 30-day period, then Limetree Bay shall submit a plan to EPA for approval to address the cause of any H<sub>2</sub>S emissions attributable to the use of H<sub>2</sub>S scavengers and to install permanent H<sub>2</sub>S monitors meeting the criteria specified in Subparagraph 50D.c. If the cause is not attributable to the use of H<sub>2</sub>S scavengers, the report shall explain the basis for Limetree Bay's determination. If EPA disagrees with Limetree Bay's determination, the disagreement is subject to dispute resolution in accordance with Part XVI (Retention of Jurisdiction/Dispute Resolution).

ii. If H<sub>2</sub>S is detected at levels above 10 ppm for less than 5% of the time during all rolling 30-day periods at the end of the two years, Limetree Bay is



not required to install permanent monitors, and may discontinue use of the temporary monitors.

50E. Idling of Flare 7. Limetree Bay may, for a period not to exceed 72 hours, and prior to the restart of any petroleum refining process unit, temporarily interconnect and jointly operate the FCCU Low Pressure Flare and Flare 7, until Flare 7 can be safely isolated and Shutdown at which time Flare 7 will be an Idled Unit. The temporary interconnection of Flare 7 with the FCCU Low Pressure flare will not be considered an interconnection for purposes of Subparagraphs 50B.a.i and 50B.b.i.

50F. Root Cause, Corrective Action and Reporting for Flaring Incidents Post Installation of Flare Gas Recovery. Following the installation of a flare gas recovery system on a flare pursuant to Paragraph 50B, Acid Gas, Tail Gas and Hydrocarbon Flaring Incidents occurring while the flare gas recovery system is in operation will be investigated and reported in accordance with NSPS Subpart Ja, 40 C.F.R. § 60.103a(c)(1)-(c)(3) in lieu of the investigation and reporting requirements in Paragraphs 60, 61, 70 and 71. Copies of NSPS Subpart Ja root cause and corrective action reporting will be included in the semi-annual CD reports required under Paragraph 71 and Part X (Reporting and Recordkeeping). The stipulated penalty provisions for Flaring Incidents will continue to apply until termination.

50G. If no Acid Gas, Tail Gas or Hydrocarbon Flaring Incidents occur at the Refinery for any consecutive 24 calendar month period, then any Acid Gas, Tail Gas and Hydrocarbon Flaring Incidents occurring thereafter shall be investigated and reported in accordance with NSPS Subpart Ja, 40 C.F.R. § 60.103a(c)(1)-(c)(3) in lieu of the investigation and reporting requirements in Paragraphs 60, 61, 70 and 71. The stipulated penalty provisions for Flaring Incidents will continue to apply until termination.

**21. Replace Paragraph 51 with the following new Paragraph 51:**

[Reserved]

**22. Modify the applicable regulatory provisions in Subparagraphs 54.a and 54.b:**

References in Subparagraph 54.a and Subparagraph 54.b to 40 C.F.R. § 60.102a(g)(1) relate to fuel gas combustion devices only and shall be changed to 40 C.F.R. § 60.103a(h) relating to flares.

**23. Replace Paragraph 55 with the following new Paragraph 55:**

55. For each Flaring Device which became an affected facility under NSPS Subpart Ja pursuant to this Consent Decree, entry of the First Modification shall satisfy the notice requirements of 40 C.F.R. § 60.7(a), and compliance with the relevant monitoring requirements of this Consent Decree shall satisfy the notification of initial performance test requirement of 40 C.F.R. § 60.8(a).

**24. Replace Subparagraph 70.a with the following new Subparagraph 70.a:**

a. Investigation, Reporting, Corrective Action, and Stipulated Penalties. For Tail Gas Incidents, Limetree Bay shall follow the same investigative, reporting, corrective action, and assessment of stipulated penalty procedures as those set forth in Paragraphs 60 through 68 for Acid Gas Flaring Incidents. Those procedures shall be applied to TGU shutdowns, bypasses of a TGU, or other events which result in a Tail Gas Incident, including scheduled and unscheduled Shutdowns of a Claus Sulfur Recovery Plant.

**25. Modify Subparagraph 70.b.ii to include a missing formula unit:**

$0.169 \times 10^{-6} = [\text{lb mole of SO}_2 / 379\text{-scf of SO}_2] [64 \text{ lbs SO}_2 / \text{lb mole SO}_2][1 \times 10^{-6}]$

**26. Insert the new Paragraphs 71A and 72A as follows:**

71A. The requirements of Section V.K shall not apply to Limetree Bay with respect to Acid Gas Flaring Incidents and Tail Gas Incidents that occurred prior to January 4, 2016.

72A. The requirements of Section V.L shall not apply to Limetree Bay with respect to Hydrocarbon Flaring Incidents that occurred prior to January 4, 2016.

**27. Replace Section V.P, Benzene Waste NESHAP Program, with the following new Section V.P, Benzene Waste NESHAP Program.**

**P. Benzene Waste NESHAP Program.**

77. Current Subpart FF Status. Limetree Bay shall continue to comply with the compliance option set forth in 40 C.F.R. § 61.342(e) (hereinafter referred to as the “6 BQ Compliance Option”), for which, in accordance with the Consent Decree, notice was provided on September 14, 2012.

78. [Reserved]

79. One-Time Review and Verification of the Refinery’s TAB and Compliance with the Benzene Waste NESHAP.

a. Phase One of the Review and Verification Process. By March 30, 2021, Limetree Bay shall complete a review and verification of the Refinery TAB and its compliance with the Benzene Waste NESHAP (Phase One Review and Verification). Limetree Bay’s review and verification process shall include, but not be limited to:

- i. An identification of each waste stream that is required to be included in the Refinery’s TAB where these waste streams meet the definition of a waste under 40 C.F.R. § 61.341 (e.g., slop oil, tank water draws, spent caustic, spent caustic hydrocarbon layer, desalter rag layer dumps, desalter vessel process sampling points, other sample wastes, maintenance wastes, and turnaround

wastes);

ii. A review and identification of the calculations and/or measurements used to determine the flows of each waste stream for the purpose of ensuring the accuracy of the annual waste quantity for each waste stream;

iii. An identification of the benzene concentration in each waste stream, including sampling for benzene concentration at no less than 10 waste streams consistent with the requirements of 40 C.F.R. § 61.355(c)(1) and (3); provided, however, that previous analytical data or documented knowledge of waste streams may be used, 40 C.F.R. § 61.355(c)(2), for streams not sampled; and

iv. An identification of any existing noncompliance with the requirements of Subpart FF.

By no later than sixty (60) Days following the completion of Phase One Review and Verification, Limetree Bay shall submit a Benzene Waste NESHAP Compliance Review and Verification report (“BWON Compliance Review and Verification Report”) that sets forth and certifies the results of the Phase One Review and Verification, including but not limited to the items identified in Subparagraphs (i) through (iv) of this Paragraph.

b. Phase Two of the Review and Verification Process. Based on EPA’s review of the BWON Compliance Review and Verification Report(s), EPA may select up to 20 additional waste streams at the Refinery for sampling for benzene concentration. Limetree Bay shall conduct the required sampling under representative conditions and submit the results to EPA within sixty (60) Days of receipt of EPA’s request. Limetree Bay shall use the results of this additional sampling to recalculate the TAB and the uncontrolled benzene quantity and to

amend the BWON Compliance Review and Verification Report, as needed. To the extent that EPA requires Limetree Bay to re-sample any waste stream sampled by Limetree Bay on or after June 10, 2019, Limetree Bay may average the results of such sampling events. Limetree Bay shall submit an amended BWON Compliance Review and Verification Report within ninety (90) Days following the date of the submittal of the required Phase Two sampling report, if Phase Two sampling is required by EPA.

80. Implementation of Actions Necessary to Correct Non-Compliance or to Come Into Compliance.

a. [Reserved]

b. Submittal of Compliance Plan. If the results of the BWON Compliance Review and Verification Report identify any compliance issues, Limetree Bay shall submit to EPA and the VIDPNR by no later than 180 Days after completion of the BWON Compliance Review and Verification Report, a plan that identifies with specificity a schedule that Limetree Bay will implement to ensure that the Refinery complies with the 6 BQ Compliance Option, as soon as practicable.

c. Review and Approval of Plans Submitted Pursuant to Subparagraph 80.b. Any plan submitted pursuant to Subparagraph 80.b, shall be subject to approval, disapproval or modification by EPA. Within sixty (60) Days after receiving any notification of disapproval or request for modification from EPA, Limetree Bay shall submit to EPA and the VIDPNR a revised plan that responds to all identified deficiencies. Upon receipt of approval or approval with conditions, or if no approval, disapproval, or approval with conditions is provided by EPA, Limetree Bay shall implement the plan according to the schedule provided in the plan. Disputes

arising under this Subparagraph shall be resolved in accordance with the dispute resolution provisions of Part XVI (Retention of Jurisdiction/Dispute Resolution).

d. Certification of Compliance with the 6 Mg Compliance Option. By no later than thirty (30) Days after completion of the implementation of all actions, if any, required pursuant to Subparagraphs 80.b or 80.c to come into compliance with the 6 BQ Compliance Option, Limetree Bay shall submit a report to EPA and the VIDPNR certifying that the Refinery complies with the Benzene Waste NESHAP.

81. Carbon Canisters and Individual Drain System Vents. Limetree Bay shall continue to operate the three-tier system for control of vents associated with the Subpart FF wastewater collection system. Vent controls are identified as either Type I (a single flow indicator “breather valve”), Type II (“breather valve” connected to a single carbon canister), or Type III (dual carbon canisters). All closed vent piping associated with these vent control systems will be monitored in accordance with the provisions associated with 40 C.F.R. § 61.349. Limetree Bay shall comply with the following:

- a. All Type I vents with flow indicators (40 C.F.R. § 61.346(b)) shall be visually inspected for flow on a daily schedule. Flow shall be indicated if the flow indicator on the breather valve has lifted. Any “breather valve” determined to relieve six or more times in any consecutive two-month period will be converted to a Type II control system. Installation of the carbon canister required by conversion to the Type II control shall be completed within two weeks. Daily visual inspection of the Type I control system will continue until conversion to a Type II control is completed.
- b. All Type II vent control systems (“breather valve” connected to a single carbon canister) shall be visually inspected on a daily schedule.

i. If the “breather valve” is determined not to have relieved, no additional monitoring is required. Secondly, if the “breather valve” is visually inspected and determined to have relieved, then the discharge opening of the carbon canister will be immediately monitored for benzene. If the benzene concentration of carbon canister discharge is determined to be less than 5 ppm, no additional actions are required. If the benzene concentration of the carbon canister discharge is determined to be equal to or greater than 5 ppm, the carbon canister will be replaced by the end of the next Day.

ii. For any Type II vent control system, if carbon canister replacement is required two or more times in any four consecutive week period the control system will be converted to a Type III system. Installation of the dual carbon canister system required by conversion to the Type III control shall be completed within two weeks. Daily inspection and monitoring (if required) of the Type II control system will continue until conversion to a Type III control is completed.

c. All Type III vent control systems will be operated in the manner described in Subparagraphs c.i through c.vii.

i. Except as expressly permitted under Subparagraph c.v, Limetree Bay shall not use single carbon canisters for any new process units or installations that require controls pursuant to the Benzene Waste NESHAP.

ii. For dual carbon canister systems, “breakthrough” between the primary and secondary canister is defined as any reading equal to or greater than 5 ppm benzene.

iii. Limetree Bay shall monitor for breakthrough between the primary

and secondary carbon canisters in accordance with the frequency specified in 40 C.F.R. § 61.354(d), or monthly, whichever is more frequent. This requirement shall commence within seven (7) Days after installation of a new, dual carbon canister system.

iv. Limetree Bay shall replace the original primary carbon canisters immediately when breakthrough is detected between the primary and secondary canister. The original secondary carbon canister will become the new primary carbon canister and a fresh carbon canister will become the secondary canister, or both canisters may be replaced. For purposes of this Subparagraph, “immediately” shall mean by the end of the next calendar Day.

v. Temporary Applications. Limetree Bay may utilize properly sized single canisters for short-term operations such as with temporary storage tanks or as temporary control devices. For canisters operated as part of a single canister system, breakthrough is defined for purposes of this Consent Decree as any reading of benzene above 5 ppm. Limetree Bay shall monitor for breakthrough from single carbon canisters each calendar day. Limetree Bay shall replace the single carbon canister with a fresh carbon canister, discontinue flow, or route the stream to an alternate, appropriate device immediately when breakthrough is detected. For this Subparagraph, “immediately” shall mean by the end of the next Day. If Limetree Bay discontinues flow to the single carbon canister or routes the stream to an alternate, appropriate control device, such canister must be replaced before it is returned to service.

vi. Limetree Bay shall maintain a readily available supply of fresh



carbon canisters at all times or otherwise ensure that such canisters are readily available to implement the requirements of this Paragraph.

vii. Limetree Bay shall maintain records associated with the requirements of this Paragraph in accordance with or as under 40 C.F.R.

§ 61.356(j)(10), including the monitoring readings observed and the constituents being monitored.

82. Laboratory Audits. All laboratories that perform analyses of Limetree Bay's Benzene Waste NESHAP samples shall be audited to ensure that proper analytical and quality assurance/quality control procedures are followed for such samples. For purposes of this Paragraph, audits can include audits conducted by parties other than Limetree Bay.

a. Prior to conducting its Phase One Review and Verification process set forth in Subparagraph 79.a, audits shall be completed of all laboratories used to perform analyses of Benzene Waste NESHAP samples to ensure that proper analytical and quality assurance/quality control procedures are followed. In addition, an audit shall be conducted of any laboratory used for analyses of benzene samples prior to such use.

b. Subsequent laboratory audits shall be conducted for each laboratory continuing to perform analyses of Limetree Bay's Benzene Waste NESHAP samples, such that each laboratory is audited every two (2) years for the life of the Consent Decree.

83. Annual Program. After the Date of Lodging of the First Modification, Limetree Bay shall continue to use the facility's written management of change procedures to review process information and construction projects, to ensure that all new benzene waste streams are included in Limetree Bay's waste stream inventory.

84. Training. Limetree Bay shall implement the following training program at the Refinery:

a. By June 1, 2020 and thereafter within ninety (90) Days from the installation of any new type of benzene control equipment, Limetree Bay shall update the facility's standard operating procedures ("SOPs") for all control equipment used to comply with the Benzene Waste NESHAP.

b. By June 1, 2020, Limetree Bay shall update the facility's BWON training program pursuant to the criteria in Appendix E ("Limetree Bay's LDAR and BWON Training Program Summary") and submit the updated training program to EPA.

c. Limetree Bay shall continue to provide an annual (i.e., once each calendar year) training program for employees (which shall include contract employees for purposes of this Paragraph) asked to draw benzene waste samples as specified in 40 C.F.R. § 61.355. Such employees shall be trained prior to collecting samples and receive training annually.

d. Limetree Bay shall continue to perform "refresher" training every three (3) years on the procedures in Subparagraph 84.a for all employees assigned to operate control equipment.

85. Waste/Slop/Off-Spec Oil Management.

a. Control Status of and Plan to Quantify Uncontrolled Waste/Slop/Off-Spec Oil Streams. By June 1, 2020, Limetree Bay shall submit to EPA and the VIDPNR any revisions to the facility's "Waste/Slop/Off-Spec Oil Management Plan," submitted by HOVENSA in June 2012 for quantifying waste/slop/off-spec oil movements for all benzene waste streams which are not controlled at the Refinery, along with schematics that: (i) depict the waste management units (including sewers) that handle, store, and transfer waste/slop/off-spec oil streams; (ii) identify the

control status of each waste management unit; and (iii) show how such oil is transferred.

Representatives from Limetree Bay and EPA thereafter may confer about the appropriate characterization of the waste/slop/off-spec oil streams as benzene waste streams and the necessary controls, if any, for the waste management units handling such oil streams for purposes of the Refinery's TAB calculation and/or compliance with the 6 BQ Compliance Option. If requested by EPA, Limetree Bay shall promptly submit revised schematics that reflect the Parties' agreements regarding the characterization of these oil streams and the appropriate control standards. Limetree Bay shall use these plans and schematics in preparing the end-of-line sampling plans required under Paragraph 87.

b. Aqueous Benzene Waste Streams. For purposes of calculating the TAB pursuant to the requirements of 40 C.F.R. § 61.342(a), Limetree Bay shall include all waste/slop/off-spec oil streams that become "aqueous" until such streams are recycled to a process or put into a process feed tank (unless the tank is used primarily for the storage of wastes). Appropriate adjustments shall be made to such calculations to avoid the double counting of benzene. For purposes of complying with the 6 BQ Compliance Option, all waste management units handling aqueous benzene waste streams shall either meet the applicable control standards of Subpart FF or shall have their uncontrolled benzene quantity count towards the applicable 6 Mg limit.

86. Benzene Waste Operations Sampling Plans: General. By June 1, 2020, Limetree Bay shall update the Benzene Waste Operations Sampling Plan that HOVENSA submitted in June 2012, designed to describe the sampling of benzene waste streams that Limetree Bay will utilize to estimate quarterly and annual uncontrolled benzene quantities under the 6 BQ

Compliance Option. Limetree Bay shall continue to comply with the June 2012 Benzene Waste Operations Sampling Plan until the updated plan is submitted.

87. Benzene Waste Operations Sampling Plans: Content Requirements. The sampling plan shall include, but need not be limited to:

- a. Annual sampling of all uncontrolled waste streams that count toward the 6 Mg/yr calculation and contain greater than 0.05 Mg/yr of benzene at the point of generation.
- b. [Reserved]
- c. The proposed End-of-Line (EOL) sampling locations and methods for flow calculations to be used in calculating projected quarterly and annual uncontrolled benzene quantity calculations under the terms of Paragraph 90. Based on the current configuration of the Refinery's wastewater system, overflows from API separators 1, 2, and 3 are the only "routine" wastewater benzene streams not controlled in accordance with Subpart FF. Therefore, sampling of the three API overflow streams will constitute the individual EOL locations.

88. Benzene Waste Operations Sampling Plans: Timing for Implementation. Limetree Bay will implement the updated plan unless and until (a) EPA disapproves the plan, or (b) Limetree Bay modifies the plan under Paragraph 89.

89. Benzene Waste Operations Sampling Plans: Modifications.

- a. Changes in Processes, Operations, or Other Factors. If changes in processes, operations, or other factors lead Limetree Bay to conclude that the sampling plan may no longer provide an accurate basis for estimating the Refinery's quarterly or annual uncontrolled benzene quantity under Paragraph 90, then by no later than ninety (90) Days after Limetree Bay determines that the plan no longer provides an accurate measure, Limetree Bay will submit to EPA and the VIDPNR a revised plan for EPA approval. In the first full Calendar Quarter after

submitting the revised plan, Limetree Bay will implement the revised plan. Limetree Bay will continue to implement the revised plan unless and until EPA disapproves the revised plan.

b. Requests for Modifications to the Sampling Frequency. After two (2) years of implementing a sampling plan, Limetree Bay may submit a request to EPA for approval, with a copy to the VIDPNR, to reduce the facility's sampling frequency. Limetree Bay may implement the modified sampling frequency 90 days after submission unless EPA disapproves the modification.

90. Quarterly and Annual Estimations of Uncontrolled Benzene Quantities. At the end of each Calendar Quarter and based on sampling results and approved flow calculations, Limetree Bay will calculate a quarterly and projected annual uncontrolled benzene quantity.

91. In making the calculations required by Paragraph 90, Limetree Bay will use the average of the samples collected at each sampling location in accordance with the Benzene Waste Operations Sampling Plan. If these calculations do not identify any potential violations of the benzene waste operations NESHAP, Limetree Bay will submit these calculations in the reports due under this Section V.P.

92. Corrective Measures: Basis. If the quarterly uncontrolled benzene calculations, required pursuant to Paragraph 90, exceeds 1.5Mg and/or the estimated annual uncontrolled benzene quantities equal or exceed 6 Mg for the then current compliance year, then by no later than sixty (60) Days after the end of the Calendar Quarter, Limetree Bay will submit a compliance assurance plan to EPA for approval, with a copy to the VIDPNR. In that compliance assurance plan, Limetree Bay will identify the quantity and cause(s) of the potentially-elevated benzene quantities, all corrective actions that Limetree Bay has taken or plans to take to ensure that the cause(s) will not recur, and either the schedule of actions that Limetree Bay will take to

ensure that the Refinery complies with the Benzene Waste Operations NESHAP for the calendar compliance year or an explanation that Limetree Bay will be able to meet the annual limit without taking corrective action. Limetree Bay will implement the plan unless and until EPA disapproves, in which case Limetree Bay shall address EPA's comments.

93. Miscellaneous Measures.

a. As of the Date of Lodging, Limetree Bay shall:

i. Conduct monthly visual inspections of and, if appropriate, refill all water traps used to comply with Subpart FF within the Refinery's individual drain systems;

ii. Ensure that all segregated stormwater drains are marked at the drain (color coding may be used);

iii. Conduct monitoring of existing API Separators 1, 2, and 3 or any new Subpart FF-regulated oil/water separators as outlined below:

(1) Conduct semi-annual seal gap measurements on all secondary seals on all floating roof portions in accordance with 40 C.F.R. § 60.693-2.

(2) The fixed roof portions of all Subpart FF regulated oil/water separators shall be monitored on a quarterly basis if Method 21 monitoring conducted pursuant 40 C.F.R. § 61.355(h) determine a leak rate of greater than one (1) percent. Monitoring of the fixed roof portion of all Subpart FF required oil/water separators will be conducted annually if Method 21 monitoring conducted pursuant to 40 C.F.R. § 61.355(h) determine a leak rate of one (1) percent or less.

(3) A current listing, as of Date of Lodging, of all Method 21 monitoring locations for API Separators 1, 2, and 3 is attached in Appendix F (“Method 21 Monitoring Locations for API Separators 1, 2, and 3”). When modifications to the API separators occur, Limetree Bay shall update and maintain a current listing of all monitoring locations for API Separators 1, 2, and 3.

94. Record Keeping and Reporting Requirements for this Section V.P Outside of the Reports Required under 40 C.F.R. § 61.357 or under the Progress Report Procedures of Part X (Reporting and Recordkeeping). At the times specified in the applicable provisions of this Section V.P, Limetree Bay will submit, as and to the extent required, the following reports to EPA and the VIDPNR:

- a. BWON Compliance Review and Verification Report (Subparagraph 79.a), as amended, if necessary (Subparagraph 79.b);
- b. Compliance assurance plan, if necessary (Paragraph 92);
- c. Compliance certification, if necessary (Subparagraph 80.d);
- d. Schematics of waste/slop/off-spec oil movements (Subparagraph 85.a), as revised, if necessary; and
- e. Sampling Plans (Paragraph 86), and revised Sampling Plans, if necessary (Subparagraph 89.a).

**28. Paragraph 99 is revised by changing June 30, 2011 to December 31, 2012.**

**29. Replace Section V.R, Leak Detection and Repair (“LDAR”) Program with the following new Section V.R, LDAR Program.**

**R. Leak Detection and Repair (“LDAR”) Program.**

100. Introduction. In order to minimize or eliminate fugitive emissions of volatile organic compounds (“VOCs”), benzene, volatile hazardous air pollutants (“VHAPs”), and organic hazardous air pollutants (“HAPs”) from equipment in light liquid and/or in gas/vapor service, Limetree Bay shall comply with the leak detection and repair (“LDAR”) requirements of this Section V.R. The terms “in light liquid service” and “in gas/vapor service” shall have the definitions set forth in the applicable provisions of 40 C.F.R. Part 60, Subpart VVa and GGGa.

101. No later than the Date of Lodging of the First Modification, the group of all equipment within each process unit (as “equipment” and “process unit” are defined by 40 C.F.R. § 60.591a) and each compressor shall become affected facilities under 40 C.F.R. Part 60, Subpart GGGa, and shall become subject to and comply with the requirements of 40 C.F.R. Part 60, Subpart GGGa, and the requirements of this Section V.R.

102. Duration. The requirements of this Section V.R shall remain in effect through May 1, 2025, or termination of the Consent Decree, whichever is later.

103. Written Refinery-Wide LDAR Program. No later than three (3) months after the Date of Entry of the First Modification, Limetree Bay shall update and thereafter maintain its written refinery-wide program for compliance with applicable LDAR Regulations and the LDAR requirements of this Consent Decree, which shall include:

- a. Procedures to identify all equipment in light liquid and/or in gas/vapor service that is subject to the LDAR Regulations and has the potential to leak VOCs, HAPs, VHAPs, and benzene within process units;
- b. Procedures for identifying leaking equipment within process units;
- c. Procedures for repairing and keeping track of leaking equipment; and



d. Procedures for identifying and including in the LDAR program new equipment.

Limetree Bay shall submit to EPA a copy of the written refinery-wide LDAR program updated pursuant to this Paragraph in the next semi-annual report following the development of the program, and review annually and update as needed.

104. [Reserved]

105. Training. Limetree Bay shall implement the following training programs at the Refinery:

a. Within six (6) months from the Date of Entry of the First Modification, update the LDAR training program pursuant to the criteria in Appendix E (“Limetree Bay’s LDAR and BWON Training Program Summary”) and submit it to EPA;

b. From and after the Date of Entry of the First Modification, Limetree Bay shall continue to provide LDAR training to existing personnel assigned to LDAR responsibilities (including but not limited to monitoring, recordkeeping, reporting, or data management). For newly hired personnel with LDAR program responsibilities, provide LDAR training prior to the personnel beginning work. All employees assigned to LDAR responsibilities shall receive training annually.

c. For other Refinery operations and maintenance personnel whose duties include limited LDAR responsibilities, continue to provide training developed pursuant to the criteria in Appendix E (“Limetree Bay’s LDAR and BWON Training Program Summary”) that includes instruction on those aspects of LDAR relevant to the person’s duties. This training shall be provided every three (3) years until termination of this Consent Decree. For newly hired

operations and maintenance personnel, such training shall be provided within six (6) months of hiring; and

d. If contractors are used to fulfill the requirements of this Section V.R, Limetree Bay shall require that such contractors be trained as required by this Paragraph, and Limetree Bay shall maintain records of such training.

106. LDAR Audits. Limetree Bay shall continue to implement the refinery-wide audits set forth in this Paragraph, to ensure the Refinery's compliance with all applicable LDAR Regulations and the LDAR requirements of this Consent Decree. The LDAR audits shall include but shall not be limited to, comparative monitoring, records review to ensure monitoring and repairs were completed in the required periods, field reviews to ensure all regulated equipment is included in the LDAR program, a review to ensure records and reports have been maintained and submitted as required, and observation of the LDAR technicians' calibration and monitoring techniques. During the LDAR audits, leak rates shall be calculated for each process unit where comparative monitoring was performed.

a. Initial Compliance Audit. By not later than 270 Days after the Date of Lodging of the First Modification, Limetree Bay shall complete a refinery-wide third-party audit of its compliance with the LDAR Regulations and the requirements of applicable Sections of the Consent Decree, which includes, at a minimum, each of the audit requirements set forth in this Paragraph other than comparative monitoring. For purposes of this requirement, "third party" may include a qualified contractor, consultant, industry group, or trade association. Within thirty (30) Days of receipt of the completed audit, Limetree Bay shall submit its Initial Compliance Audit Report to EPA and the VIDPNR that sets forth any areas of non-compliance identified as a result of its audit and includes a proposed compliance schedule for correcting the non-

compliance. If the proposed compliance schedule extends greater than sixty (60) Days beyond the audit completion date, Limetree Bay must seek approval of the compliance schedule from EPA. Limetree Bay shall implement the compliance schedule as proposed until the schedule is approved or disapproved by EPA. Upon receipt of any disapproval from EPA, Limetree Bay shall correct the non-compliance pursuant to the schedule that EPA proposed, or, if EPA did not so specify, as expeditiously as practicable. Within one (1) year of Date of Entry of the First Modification, Limetree Bay shall certify to EPA that the Refinery:

- i. Is in compliance;
- ii. Has completed related corrective action and/or is on a compliance schedule (if necessary); and
- iii. Shall specifically certify that all existing equipment has been identified and included in the facility LDAR program, to the extent required by applicable regulations and the Consent Decree, as of the date such certification is made.

b. Subsequent Audits. Limetree Bay shall conduct an audit of its LDAR program compliance with applicable LDAR Regulations and the requirements under this Section V.R, at least once every two (2) years after the initial compliance audit required by Subparagraph 106.a, in the same Calendar Quarter. Limetree Bay shall retain a contractor with expertise in the LDAR Program's requirements and familiarity with Certified Low-Leaking Valve and/or Certified Low-Leaking Valve Packing Technology to perform the first subsequent audit ("Third-Party LDAR Audit"). Thereafter, Limetree Bay shall alternate performance of the audit between Limetree Bay personnel familiar with the LDAR Program's requirements or contractors with

expertise in the LDAR Program's requirements ("Internal Audit") and a Third-Party LDAR Audit.

107. Implementation of Actions Necessary to Correct Non-Compliance. If the results of any of the audits conducted pursuant to this Section V.R identify any area(s) of non-compliance, Limetree Bay shall implement, as soon as practicable, all appropriate steps necessary to correct the area(s) of non-compliance and to prevent a recurrence of the cause of the non-compliance, to the extent practicable. For purposes of this Paragraph, if a ratio of the process-unit valve leak percentage established through a comparative monitoring audit conducted pursuant to Paragraph 106, and the average valve leak percentage reported for the process unit for the last four (4) monitoring periods preceding the audit, is equal to or greater than 3.0, and provided the auditor identified at least three (3) leaking valves in the process unit, it shall be deemed an area of non-compliance and cause for corrective action. If the calculated ratio yields an infinite result, Limetree Bay shall assume one (1) leaking valve was found in the process unit through its routine monitoring during the four (4) monitoring periods. In the Semi-Annual LDAR Report submitted pursuant to the provisions of Paragraph 123 covering the period when an audit was conducted, Limetree Bay shall submit the results of the audit, and shall certify to EPA that the audit has been completed and that the Refinery is in compliance or on a compliance schedule.

108. Retention of Audit Reports. Until termination of the Consent Decree, Limetree Bay shall retain the audit reports generated pursuant to this Section V.R and shall maintain a written record of the corrective actions taken in response to any deficiencies identified in any audits.

109. Leak Definition for Valves and Pumps. Limetree Bay shall utilize the leak definitions for valves as defined at 40 C.F.R. § 60.482-7a(b) and pumps in light liquid and/or gas/vapor service as defined at 40.C.F.R. § 60.482-2a(b)(1)(ii), unless a lower leak definition is established under applicable permit(s) or other applicable LDAR Regulations from the Date of Lodging of the First Modification.

110. [Reserved]

111. [Reserved]

112. Limetree Bay Valve Preventative Leak Maintenance Program. Within thirty (30) Days after the Date of Lodging of the First Modification, Limetree Bay shall implement the Valve Preventative Leak Maintenance Program (the “Valve Preventative Leak Maintenance Program” or “the program”) set forth in this Paragraph 112 to replace and/or improve the emissions performance of valves subject to this Section V.R (“Covered Equipment Valve”).

a. Definitions. The following definitions apply to this Paragraph 112:

i. “Extension,” for the purposes of Subparagraph 112.a.iii(1)(B) and 112.a.iii(2)(B) shall mean that: (i) the tested and untested valves were produced by the same manufacturer to the same or essentially equivalent quality requirements; (ii) the characteristics of the valve that affect sealing performance (e.g., type of valve, stem motion, tolerances, surface finishes, loading arrangement, and stem and body seal material, design, and construction) are the same or essentially equivalent as between the tested valve and the untested valve; and (iii) the temperature and pressure ratings of the tested valve are at least as high as the temperature and pressure ratings of the untested valve.

ii. “Low Emissions Packing” or “Low-E Packing” shall mean either (1) or (2) as follows:

(1) A valve packing product, independent of any specific valve, for which the manufacturer has issued a written warranty that the packing will not emit fugitives at greater than 100 ppm, and that, if it does so emit at any time in the first five years, the manufacturer will replace the product; provided however, that no packing product shall qualify as “Low-E” by reason of written warranty unless the packing first was tested by the manufacturer or a qualified testing firm pursuant to generally accepted good engineering practices for testing fugitive emissions and the results of the testing reasonably support the warranty; or

(2) A valve packing product, independent of any specific valve, that has been tested by the manufacturer or a qualified testing firm pursuant to generally accepted good engineering practices for testing fugitive emissions, and that, during the test, at no time leaked at greater than 500 ppm, and on average, leaked at less than 100 ppm.

iii. “Low Emissions Valve” or “Low E Valve” shall mean either (1) or (2) as follows:

(1) A valve (including its specific packing assembly) for which the manufacturer has issued a written warranty that it will not emit fugitives at greater than 100 ppm, and that, if it does so emit at any time in the first five years, the manufacturer will replace the valve; provided

however, that no valve shall qualify as “Low E” by reason of written warranty unless the valve (including its specific packing assembly) either:

(A) first was tested by the manufacturer or a qualified testing firm pursuant to generally accepted good engineering practices for testing fugitive emissions and the results of the testing reasonably support the warranty; or

(B) is an Extension of another valve that qualified as “Low E” under Subparagraph 112.a.iii.

(2) A valve (including its specific packing assembly) that:

(A) Has been tested by the manufacturer or a qualified testing firm pursuant to generally accepted good engineering practices for testing fugitive emissions and that, during the test, at no time leaked at greater than 500 ppm, and on average, leaked at less than 100 ppm; or

(B) Is an Extension of another valve that qualified as “Low E” under Subparagraph 112.a.iii.

iv. “Maintenance Shutdown” shall mean a Shutdown of a process unit that lasts longer than thirty (30) Days.

b. Procedures Required to be Implemented. Under the Valve Preventative Leak Maintenance Program, Limetree Bay shall implement the following procedures:

i. By no later than thirty (30) Days after the Date of Lodging of the First Modification, Limetree Bay shall implement modified purchasing procedures that evaluate the availability of valves and/or valve packing that meet

the requirements for a Low-E Valve or Low-E Packing at the time that the valves and/or valve packing is acquired.

ii. Except as provided in Subparagraph 112.c, by no later than thirty (30) Days after the Date of Lodging of the First Modification, Limetree Bay shall install valve packing material that meets the requirements for Low-E Packing whenever repacking any Covered Equipment Valve.

iii. Except as provided in Subparagraph 112.c, by no later than ninety (90) Days after the Date of Lodging of the First Modification, Limetree Bay shall ensure that each new valve that would qualify as a Covered Equipment Valve that it installs is a Low-E Valve or is fitted with Low-E Packing. Newly installed sampling and instrumentation valves in service on piping with a diameter of 5/8 inches or less are not required to be Low-E Valves or be fitted with Low-E Packing.

iv. Replacement and Repacking of Leaker Valves. Except as provided in Subparagraph 112.c, by not later than five months after Restart, for each Covered Equipment Valve for which the highest emission level that is recorded during monitoring in compliance with Method 21 is at or above 2000 ppm during any two monitoring events (excluding repair verification monitoring) in any 60-month period following the Date of Lodging of the First Modification, Limetree Bay shall replace or repack such valve with a Low-E Valve or with Low-E Packing. If a valve is repacked or replaced according to this Subparagraph, there shall be a period of 15 days after it is repacked or replaced, where this Subparagraph 112.b.iv shall not apply, to allow for adjustment of the valve. The



timing of replacement or repacking under this Subparagraph 112.b.iv shall be in accordance with Subparagraph 112.d.

c. Unavailability of a Low-E Valve or Low-E Packing

i. Commercial Unavailability. Limetree Bay shall not be required to utilize a Low-E Valve or Low-E Packing to replace or repack a valve if a Low-E Valve or Low-E Packing is commercially unavailable in accordance with the provisions in Appendix M (“Process and Factors For ‘Commercial Unavailability’ of Low-E Valve or Packing”). Prior to claiming this commercial unavailability exemption, Limetree Bay must contact a reasonable number of vendors of valves and obtain a written representation or equivalent documentation from each vendor that the particular valve that Limetree Bay needs is commercially unavailable either as a Low-E Valve or with Low-E Packing. In the semi-annual report required under Part X (Reporting and Recordkeeping), Limetree Bay shall: (i) identify each valve for which it could not comply with the requirement to replace or repack the valve with a Low-E Valve or Low-E Packing; (ii) identify the vendors it contacted to determine the unavailability of such a Low-E Valve or Low-E Packing; and (iii) include the written representations or documentation that Limetree Bay secured from each vendor regarding the unavailability.

ii. Ongoing Assessment of Availability. Limetree Bay may use a prior determination of Commercial Unavailability of a valve or valve packing pursuant to this Paragraph and Appendix M for a subsequent Commercial Unavailability claim for the same valve or valve packing (or valve or valve packing in the same or similar service), provided that the previous determination was completed

within the preceding 12-month period. After one year, Limetree Bay must conduct a new assessment of the availability of a valve or valve packing meeting Low-E Valve or Low-E Packing requirements.

d. Timing of Valve Replacement/Improvement

i. If Replacing or Repacking Does Not Require a Process Unit Shutdown. If replacing or repacking does not require a process unit Shutdown, Limetree Bay shall replace or repack such valve by no later than thirty (30) Days after the monitoring event that triggers the replacing or repacking requirement, unless Limetree Bay complies with the following:

(1) Prior to the deadline, Limetree Bay must take all actions necessary to obtain the required valve or valve packing, including all necessary associated materials, as expeditiously as practical, and retain documentation of the actions taken and the date of each such action.

(2) If, despite Limetree Bay's efforts to comply with Subparagraph 112.d.i(1) the required valve or valve packing, including all necessary associated materials, is not available in time to complete the installation within thirty (30) Days, Limetree Bay must take all reasonable actions to minimize emissions from the valve pending completion of the required replacing or repacking. Examples include:

(A) Repair;

(B) More frequent monitoring, with additional repairs as needed; or

(C) Where practical, interim replacing or repacking of a valve with a valve that is not a Low-E Valve or with packing that is not Low-E Packing; and

(3) Limetree Bay must promptly perform the required replacing or repacking after Limetree Bay's receipt of the valve or valve packing, including all necessary associated materials.

ii. If Replacing or Repacking Requires a Process Unit Shutdown. If replacing or repacking requires a process unit Shutdown, Limetree Bay shall replace or repack such valve during the first Maintenance Shutdown that follows the monitoring event that triggers the requirement to replace or repack the valve, unless Limetree Bay documents that insufficient time existed between the monitoring event and that Maintenance Shutdown to enable Limetree Bay to purchase and install the required valve or valve packing technology. In that case, Limetree Bay shall undertake the replacing or repacking at the next Maintenance Shutdown that occurs after Limetree Bay's receipt of the valve or valve packing, including all necessary associated materials.

e. Records of Low-E Valves and Low-E Packing. Prior to purchasing any Low-E Valves or Low-E Packing, Limetree Bay shall secure, from each manufacturer, documentation that demonstrates that the proposed valve or packing technology meets the definition of "Low-E Valve" and/or "Low-E Packing." Limetree Bay shall retain that documentation for five (5) years and make it available upon request.

f. Valve Replacement/Improvement Report. In each semi-annual report due under Part X (Reporting and Recordkeeping), Limetree Bay shall include a separate section in

the report that: (i) describes the actions it took to comply with this Paragraph 112, including identifying each valve that was replaced or upgraded; and (ii) identifies the schedule for any future valve replacements or upgrades required as part of Subparagraph 112.d.

113. LDAR Monitoring Frequency. By no later than the Date of Entry of the First Modification, for all Covered Equipment, except as provided in 40 C.F.R. § 60.482-1a(c)-(f), Limetree Bay shall comply with the monitoring frequency for valves as required by 40 C.F.R. § 60.482-7a, 40 C.F.R. § 60.482-10a, and 40 C.F.R. § 60.483-2a and for pumps as required by 40 C.F.R. § 60.482-2a.

114. Electronic Storage of LDAR Data. On and after the Date of Lodging of the First Modification, Limetree Bay shall record all LDAR monitoring and repair data in an electronic database.

115. Electronic Monitoring and Reporting of LDAR Data. On and after the Date of Lodging of the First Modification, Limetree Bay shall use dataloggers and/or electronic data collection devices during LDAR monitoring. Limetree Bay or contractor(s) retained by Limetree Bay shall use their best efforts to transfer each monitoring reading to the database within five (5) Days of collecting the reading. For all monitoring events in which an electronic data collection device is used, the collected monitoring data shall include a time and date stamp, screening value, operator identification, and instrument identification. Limetree Bay may use paper logs where necessary or more feasible (e.g., small rounds, remonitoring, or when dataloggers are not available or broken), and shall record the identification of the technician undertaking the monitoring, the date, time, screening value, and the identification of the monitoring equipment. Limetree Bay shall transfer any manually recorded monitoring data to the electronic database within seven (7) Days of monitoring.

116. QA/QC of LDAR Data. By no later than ninety (90) Days after the Date of Lodging of the First Modification, Limetree Bay shall develop and implement a procedure to ensure a quality assurance/quality control (“QA/QC”) review of all data generated by each LDAR monitoring technician. This QA/QC procedure shall require:

- a. Monitoring technician(s) to review and certify the accuracy of the monitoring data they collected each week; and
- b. Non-monitoring personnel to review monitoring data quarterly, including but not limited to, number of components monitored per technician, time between monitoring events, and abnormal data patterns.

117. LDAR Personnel. By no later than the Date of Lodging of the First Modification, Limetree Bay shall maintain the facility’s existing program which holds Limetree Bay LDAR personnel accountable for LDAR performance. Limetree Bay shall maintain a position with responsibility for LDAR management and with the authority to implement improvements.

118. Adding / Removing Valves and Pumps. On and after the Date of Lodging of the First Modification, Limetree Bay shall continue to implement its tracking program for maintenance records (e.g., a Management of Change program) to ensure that valves and pumps subject to the LDAR Regulations and this Consent Decree, which are installed and placed into VOC service, are integrated into the LDAR program.

119. Calibration. Limetree Bay shall conduct all calibrations of LDAR monitoring equipment using methane as the calibration gas, in accordance with 40 C.F.R. Part 60, EPA Reference Test Method 21.

120. Calibration Drift Assessment. Within six calendar months of the Date of Lodging of the First Modification, Limetree Bay shall conduct calibration drift assessments of LDAR monitoring equipment pursuant to 40 C.F.R. § 60.485a(b)(2).

121. Extended Maintenance and Delay of Repair. Beginning no later than one (1) year from Date of Lodging of the First Modification, Limetree Bay shall eliminate normal use of delay of repair exemptions for equipment in VOC service (as defined in 40 C.F.R. § 60.481a) under applicable regulations and the Consent Decree, and shall perform monitoring and maintenance as follows: perform monitoring and “drill and tap” repairs according to Subparagraphs 121.a and b, and perform extended maintenance to attempt to stop the leak source as outlined under Subparagraph 121.c. If Limetree Bay, after having implemented one or more of the extended maintenance leak repair techniques identified in Subparagraph 121.c, cannot repair the leak, Limetree Bay may delay repair of the leak until the next process unit Shutdown. Extended maintenance shall not be required where any of the following is the case: (i) for the period beginning no later than one (1) year from the Date of Lodging of the First Modification through five (5) years of the Date of Entry of the First Modification, the number of valves on the delay of repair list does not exceed 0.1 percent refinery-wide upon determination of delay of repair; and for the period beginning no later than five (5) years of the Date of Entry of the First Modification, the number of valves on the delay of repair list does not exceed 0.05 percent refinery-wide upon determination of delay of repair; or (ii) the feasible extended maintenance techniques listed in Subparagraph 121.c would result in a Shutdown of a process unit or create an unsafe operating condition. Limetree Bay shall report the circumstances (why it was required, what was actually performed, whether it was successful) of all leaks attempted to be repaired under Subparagraph 121.c in semi-annual reports required under Paragraph 71.

a. For all equipment:

i. Require sign-off by the plant manager, a corporate official responsible for environmental management and compliance, a corporate official responsible for plant engineering, an operations manager, an area superintendent, or an area manager or designee by the 15th day after identification of the leak that the equipment cannot be removed from VOC service and is technically infeasible to repair without implementation of extended maintenance as set forth in Subparagraph 121.c; and

ii. Monitor monthly equipment on the “delay of repair” list which remains in VOC service.

b. For valves: For valves, other than control valves and pressure relief valves, require use of “drill and tap” or similarly effective repairs, unless the valve can be repaired by other means or Limetree Bay can demonstrate that there is a safety, mechanical, or adverse environmental concern posed by attempting to repair the leak in this manner. Limetree Bay shall perform multiple “drill and tap” attempts (or similarly effective repairs) within fifteen (15) Days of identification of the leak, if necessary, to repair the valve.

c. If the repair methods undertaken pursuant to Subparagraph 121.b have not stopped the source of the leak, Limetree Bay shall, within sixty (60) Days of identifying the leak, perform at least one extended maintenance attempt to stop the leak source, including building an enclosure for the equipment which meets ‘no detectable emissions’ standards under NSPS Subpart VV, line-stopping (i.e., inserting a plugging device inside the line so the contents can temporarily be held back while maintenance is performed on-line), hot-tapping (i.e., connecting a new piping service to an existing line with no interruption of flow), or pipe-freezing (i.e., holding

back system pressure in a section of piping using freeze chambers which are installed over a short section of piping and injected with liquid nitrogen or CO<sub>2</sub>). Limetree Bay shall report the circumstances (why it was required, what was actually performed, was it successful) of all leaks attempted to be repaired or exempt from repair under this Subparagraph in semi-annual reports required under Part X (Reporting and Recordkeeping). If Limetree Bay applies a different extended repair technique than those listed in this Subparagraph, Limetree Bay shall report such technique under Paragraph 123 and explain how it is similarly effective at stopping the leak, and shall specifically explain why this technique could not be applied within fifteen (15) Days of identification of the leak.

122. Recordkeeping Requirements for this Section V.R. For at least two (2) years after termination of this Consent Decree, Limetree Bay shall retain records to demonstrate its compliance with the requirements of this Section V.R.

123. As part of the reports required under 40 C.F.R. §§ 60.487a and 63.655 (Semi-Annual LDAR Report), Limetree Bay shall include the following information, at the following times:

- a. The next Semi-Annual LDAR Report after the applicable compliance date for each requirement shall include notification of the following:
  - i. Implementation of the “Valve Preventative Leak Maintenance Program” of Paragraph 112;
  - ii. Implementation of QA/QC procedures for review of data generated by LDAR technicians as required by Paragraph 116;



iii. Development of a tracking program for new valves and pumps added during maintenance and construction (Management of Change Program) as required by Paragraph 118;

iv. Implementation of the calibration and calibration drift assessment procedures of Paragraphs 119 and 120;

v. Implementation of the “delay of repair” procedures of Paragraph 121;

vi. Utilization of electronic data collection devices during LDAR monitoring, pursuant to the requirements of Paragraph 115;

vii. [Reserved]; and

viii. Implementation of the monitoring requirements of Paragraph 113.

b. Until termination of this Section V.R, each Semi-Annual LDAR Report that Limetree Bay submits shall include:

i. An identification of each audit, if any, that was conducted pursuant to the requirements of Paragraph 106 in the previous semi-annual period. For each audit identified, the report shall include an identification of the auditors, a summary of the audit results, and a summary of the actions that Limetree Bay took or intends to take to correct all deficiencies identified in the audits.

ii. Training. Information identifying the measures taken to comply with the provisions of Paragraph 105;

iii. [Reserved]; and

iv. Monitoring. The following information on LDAR monitoring:

- (1) A list of the process units monitored during the reporting period;
- (2) The number of valves and pumps present in each monitored process unit;
- (3) The number of valves and pumps monitored in each process unit and if less than the number in (2), include an explanation as to why;
- (4) The number of valves and pumps found leaking in each process unit during the period, and the valve leak percentage for each process unit;
- (5) The number of “difficult to monitor” pieces of equipment monitored;
- (6) The projected month of the next monitoring event for that unit;
- (7) A list of all equipment currently on the “delay of repair” list, the date each component was placed on the list, the date each such component was determined to be leaking above applicable leak definitions, the circumstances of any extended maintenance repairs under Subparagraph 121.c, the associated monitoring results for each piece of equipment, and whether such activities were completed in a timely manner;
- (8) [Reserved];

(9) The number of valves not repacked or replaced and recorded as required under Paragraph 112;

(10) The number of valves which were newly installed without appropriate packing or valve technology, as required under Paragraph 112; and

(11) The number of missed or untimely repairs under Paragraph 111.

**30. Replace Part VI, Permitting with the following new Part VI, Permitting.**

124. Obtaining Permit Limits for Consent Decree Emission Limits That Are Effective On or Before the Date of Entry of the First Modification. Except as set forth below, by no later than 180 Days after the Date of Entry of the First Modification, Limetree Bay shall submit applications, amendments and/or supplements to the relevant permitting authority to incorporate the surviving Consent Decree obligations identified in Appendix O (“Requirements That Shall Survive Termination of the Consent Decree”) that are effective on or before the Date of Entry of the First Modification into federally enforceable minor or major new source review permits or other permits (other than Title V permits) or provisions (e.g., SIP) that are federally enforceable. Upon issuance of such permits or in conjunction with such permitting, Limetree Bay shall file all applications necessary to incorporate the requirements of those permits into the Title V permit for the Refinery.

125. Obtaining Permit Limits For Consent Decree Emission Limits That Become Effective After Date of Entry of the First Modification. Except as set forth below, as soon as practicable, but in no event later than 180 Days after the effective date or establishment of any surviving Consent Decree obligations identified in Appendix O, other than those effective on or

before the Date of Entry of the First Modification, Limetree Bay shall submit applications, amendments and/or supplements to the relevant permitting authority to incorporate those emission limits and standards into federally enforceable minor or major new source review permits, or other permits (other than Title V permits) or provisions (e.g., SIP) that are federally enforceable. Upon issuance of such permit or in conjunction with such permitting, Limetree Bay shall file all applications necessary to incorporate the requirements of those permits into the Title V permit for the Refinery.

126. Mechanism for Title V Incorporation. The Parties agree that the incorporation of any surviving Consent Decree obligations into the Title V permit for the Refinery as required by Paragraphs 124 and 125 shall be in accordance with the applicable territorial Title V rules.

127. Construction Permits. Limetree Bay agrees to obtain all required, federally enforceable permits for the construction of the pollution control technology and/or the installation of equipment necessary to implement the requirements of the Consent Decree.

127A. Obligations That Shall Survive Consent Decree Termination. The requirements imposed by the provisions identified in Appendix O shall survive termination of the Consent Decree under Part XIX (Termination).

a. Emission Limits and Standards. The requirements identified in Appendix O shall constitute emission limits and standards that shall survive termination of the Consent Decree by virtue of being incorporated into non-Title V federally enforceable minor or major permits or being required under a federally enforceable rule as required by Paragraphs 124 and 125.

b. Optional Review of Draft Permit Application for Consistency with Consent Decree.

i. By not later than 180 days prior to the date for submission of any permit application(s) to incorporate surviving emission limits and standards identified in this Paragraph 127A and Appendix O into federally-enforceable minor or major new source review permits or other permits (and, upon issuance of such permits or in conjunction with such permitting, into Title V permits) Limetree Bay may, following the procedures in Paragraph 225 (Notices), submit for EPA and VIDPNR review and comment a draft of the permit application(s) containing the terms, conditions and other provisions to incorporate such surviving obligations. EPA's review and comment is intended to assist efforts to submit permit application(s) to the relevant permitting entity that fully incorporate such surviving obligations; EPA does not warrant or guarantee by its review and comment on a *draft* permit application that Limetree Bay has met or will thereafter meet the requirement of Paragraph 234.e to show that, at the time of Termination of this Consent Decree, the *final* permit(s) once issued by the relevant permitting entity accurately and fully incorporate the surviving Consent Decree obligations. In addition, such review by EPA is not pre-decisional or binding upon the relevant permitting entity, which may at its discretion require additional and/or more stringent terms and conditions than those required under this Consent Decree.

ii. If Limetree Bay elects to submit a draft permit application(s) for optional review under this Subparagraph, Limetree Bay shall have 30 days from the date of receipt of EPA's comments in which to submit its permit application(s) to the relevant permitting entity(s), notwithstanding the deadline for

submission of permit applications under Paragraph 124 or Paragraph 125, as applicable. The Parties may agree to a longer time period for submission of the permit application(s) to the relevant permitting entity(s) if needed to address questions or issues concerning EPA's review.

**31. Replace Subparagraph 130.b with the following new Subparagraph 130.b:**

b. CD Emissions Reductions may be used only at the Refinery.

**32. Add the following new Paragraph 135A:**

135A. For Boilers 5, 8, and 9, which became subject to NSPS Subpart D pursuant to Paragraph 135, entry of the First Modification of the Consent Decree shall satisfy the notice requirements of 40 C.F.R. § 60.7(a).

**33. Replace Paragraph 136 with the following new Paragraph 136:**

136. NSPS Subparts A and GG.

a. Power Line-Up. Limetree Bay submitted its "power line-up" to the United States and the Virgin Islands on December 31, 2018. The power line-up identified Generating Turbines that Limetree Bay plans to operate when Idled Units at the Refinery resume operation and the normal operating range at which they are expected to operate. By December 31, 2019, Limetree Bay shall re-submit its power line-up to the United States and the Virgin Islands if there are any changes from the December 31, 2018 submission.

b. Applicability and Compliance with NSPS Subparts A and GG:  
Generating Turbines 4, 7, 8, and 9 are "affected facilities" as that term is defined in 40 C.F.R. Part 60, Subparts A and GG.

i. Generating Turbine 9. Generating Turbine 9 shall continue to comply with the requirements of NSPS Subparts A and GG. Paragraph 229A and Appendix L shall apply to Generating Turbine 9.

ii. Generating Turbines 4, 7, and 8

(1) From the Date of Lodging of the First Modification until Limetree Bay demonstrates compliance with NSPS Subparts A and GG in accordance with Subparagraph 136.b.ii(2), Generating Turbines 4, 7, and 8 shall comply with the requirements of NSPS Subparts A and GG, except that in lieu of complying with the NSPS Subpart GG numerical standard for NO<sub>x</sub>, the Generating Turbines shall comply with the applicable Maximum Load Limits set forth in Subparagraph 136.d.ii.

(2) By no later than December 31, 2020, Generating Turbines 4, 7, and 8 shall demonstrate compliance with all requirements of NSPS Subparts A and GG. Compliance with the applicable NSPS Subpart GG numerical standard for NO<sub>x</sub>, shall be demonstrated (a) by CEMS or a stack test performed using the test methods specified in 40 C.F.R. § 60.335 and § 60.8, and at four different load points, including one load point within 5 percent at 90-to-100 percent of the manufacturer's design capacity, or at the highest achievable load point if Limetree Bay can demonstrate that a load point within 5 percent at 90-to-100 percent of design

capacity cannot be physically achieved in practice, or (b) by an alternate test method specifically approved by EPA in writing.

c. Custom Sulfur Monitoring Plan:

i. Pursuant to 40 C.F.R. § 60.334(i)(3), Limetree Bay submitted a custom sulfur monitoring schedule to EPA on August 31, 2017 for propane and distillate. The custom sulfur monitoring schedule may be revised in accordance with 40 C.F.R. § 60.334(i)(3). Limetree Bay shall comply with any proposed custom sulfur monitoring schedule as submitted unless EPA disapproves. If EPA disapproves of a custom schedule, then within thirty (30) Days of Limetree Bay's receipt of disapproval, Limetree Bay will submit to EPA a revised custom schedule that provides for compliance with the applicable monitoring requirements, which may include additional or different monitoring. Limetree Bay shall comply with the revised custom schedule as submitted unless EPA disapproves.

d. Maximum Load Limits for Generating Turbines 4, 7, and 8 until

Subparagraph 136.b.ii(2) compliance demonstration:

i. Interim Controls

Limetree Bay has installed LHE Combustion Liner Systems on GTs 7 and 8, which will not be removed any earlier than the date Limetree Bay installs and operates alternative NO<sub>x</sub> controls, or is replaced at or before end of life. Limetree Bay shall demonstrate compliance with the NSPS, Subparts A and GG numerical standard for NO<sub>x</sub>, as required in Subparagraph 136.b.ii(2), within sixty Days after it begins operations with alternative NO<sub>x</sub> controls.



ii. Applicability of Maximum Load Limits

From the Date of Lodging of the First Modification until Limetree Bay demonstrates full compliance with NSPS Subparts A and GG, as required in Subparagraph 136.b.ii.(2), Generating Turbines 4, 7, and 8 shall comply with the applicable Maximum Load Limits as set forth in Subparagraphs 136.d.iii through 136.d.iv.

iii. Maximum Load Limits. From the Date of Lodging of the First Modification until a subsequent Maximum Load Limit is established in accordance with Subparagraph 136.d.iv, the following fuel and load limits are the applicable Maximum Load Limits for Generating Turbines 4, 7, and 8:

Turbine	Fuel	Maximum Load (1-hour block average)
GT-4	Propane Gas	6.67 MW
	Fuel Oil	6.49 MW
	Fuel Gas	6.49 MW
GT-7	Propane Gas	14.53 MW
	Fuel Oil	12.97 MW
	Fuel Gas	12.97 MW
GT-8	Propane Gas	12.14 MW
	Fuel Oil	11.09 MW
	Fuel Gas	11.09 MW

iv. Subsequent Maximum Load Limits.

(1) Limetree Bay may establish subsequent Maximum Load Limits for Generating Turbine 4, 7, or 8 or combust other fuels, provided it establishes those limits by conducting testing, in accordance with

Subparagraph 136.d.iv(2) – (5) below. Such testing may be conducted prior to and/or after the Date of Lodging of the First Modification.

(2) Limetree Bay shall use the test methods specified in 40 C.F.R. § 60.335 and § 60.8 to measure NO<sub>x</sub> emissions from the Generating Turbine to establish subsequent Maximum Load Limits, except that for the purpose of conducting the stack test required by this Subparagraph 136.d.iv(2), Limetree Bay shall not be required to test at 90-to-100 percent of design capacity, as one of its four load points.

(3) Limetree Bay shall provide notice to EPA and the VIDPNR no later than thirty (30) Days prior to any stack test of Generating Turbines 4, 7, and 8 conducted to establish subsequent Maximum Load Limits.

(4) No later than thirty (30) Days after conducting tests to establish subsequent Maximum Load Limits, Limetree Bay shall provide the results of such testing to EPA and the VIDPNR.

(5) From the Day that Limetree Bay satisfactorily completes a test conducted pursuant to this Subparagraph 136.d.iv, the applicable Maximum Load Limit shall be the maximum MW load, measured in a single run, on a 1-hour block average, at which the stack test results demonstrate that a specific fuel will result in emissions that will not exceed the NSPS Subparts GG NO<sub>x</sub> numerical standard in 40 C.F.R. § 60.332(a)(2), and Limetree Bay shall operate at or below this subsequent Maximum Load Limit.

e. Recordkeeping. From the Date of Lodging of the First Modification until compliance is demonstrated in accordance with Subparagraph 136.b.ii(2), Limetree Bay shall maintain a record of the operating MW load, measured on a 1-hour block average, for Generating Turbines 4, 7, and 8. Limetree Bay shall make these records available to EPA and the VIDPNR upon request.

f. Notice. If Generating Turbines 4, 7, or 8 exceed the applicable Maximum Load Limit set forth in Subparagraph 136.d.iii or established in accordance with Subparagraph 136.d.iv, Limetree Bay shall within seven (7) Days of the exceedance provide notice to the EPA and the VIDPNR.

g. Stipulated Penalties.

i. Generating Turbines 4, 7, and 8 – Failure to Comply with Maximum Load Limit. Limetree Bay shall be subject to a stipulated penalty of \$250 for every hour that Limetree Bay operates Generating Turbine 4, 7, or 8 at a MW load more than ten (10) percent higher than the applicable Maximum Load Limit set forth in Subparagraph 136.d.iii or established in accordance with Subparagraph 136.d.iv, except that stipulated penalties for exceedances of a Maximum Load Limit do not apply during a performance test for which Limetree Bay provided notice to EPA pursuant to Subparagraph 136.d.iv(3).

ii. Generating Turbines 4, 7, 8, and 9 – Failure to Comply with NSPS Subpart GG by Compliance Date. Limetree Bay shall be subject to the following stipulated penalties for failure to comply with NSPS Subpart GG following the compliance dates set forth in Paragraphs 136.b.i and b.ii(2):

<u>Period of Non-Compliance</u>	<u>Penalty Per Day Per Turbine</u>
1 <sup>st</sup> Day through 30 <sup>th</sup> Day after deadline	\$200
31 <sup>st</sup> through 60 <sup>th</sup> Day after deadline	\$500
Beyond 60 <sup>th</sup> Day after deadline	\$1,000

**34. Add the following new Paragraph 136A:**

136A. For Generating Turbines 4, 7 and 8, which became subject to NSPS Subpart GG pursuant to Paragraph 136, entry of the First Modification of the Consent Decree and compliance with the relevant monitoring and compliance demonstration requirements of this Consent Decree shall satisfy the notice requirements of 40 C.F.R. § 60.7(a) and the initial performance test requirement of 40 C.F.R. § 60.8(a).

**35. Replace Section IX.A with the following new Section IX.A:**

**IX.A. Territorial Supplemental Environmental Project**

**137. Virgin Islands Territorial SEP**

a. The VIDPNR shall develop and ensure implementation of Territorial Supplemental Environmental Projects (“TSEP”) designed to benefit the people of the Virgin Islands. These projects shall be consistent with environmental, public health, pollution prevention or reduction, or other benefits and objectives of the environmental protection laws of the United States and the Virgin Islands. Among the potential projects, the VIDPNR is developing TSEPs for the establishment of a cancer registry and the establishment of a pediatric environmental specialty health unit.

b. Within thirty (30) Days of a written request by the VIDPNR to the ERT for funding, the ERT shall provide for the disbursement of such funds from the TSEP Escrow Account, as directed by the VIDPNR, for the purpose of implementing the identified TSEP.

c. All funds disbursed pursuant to this Paragraph shall be paid directly by the ERT to the TSEP provider(s) identified by the VIDPNR.

d. In annual reports, due the thirty-first Day of January, the ERT shall identify the amount remaining in the TSEP Escrow Account at the end of the reporting period, and the amount disbursed and to whom it was disbursed during the reporting period.

e. At the time the Court orders this Consent Decree to be terminated, the ERT shall disburse any remaining monies in the TSEP Escrow Account to the VIDPNR for development and implementation of projects that are consistent with the TSEP criteria set forth in this Paragraph.

138. [Reserved]

139. [Reserved]

140. [Reserved]

**36. Replace Section IX.B with the following new Section IX.B:**

**B. Additional Work**

**140A. VIWAPA Emissions Monitoring Assistance Subsequent to the First Modification**

a. Prior to the disbursal of funds to VIWAPA, the ERT shall submit to EPA for EPA's review: (i) its contractor's detailed description of the assistance provided, including expenditures, certified as accurate by a responsible VIWAPA company official; and (ii) its contractor's statement indicating what monies expended by VIWAPA are consistent with the Consent Decree and the approved SOW.

b. Within thirty (30) Days of receipt by the ERT of the statement by its contractor referenced in Subparagraph a. above, the ERT shall reimburse VIWAPA from funds earmarked for the VIWAPA Emissions Monitoring Assistance Program in accordance with the statement.

c. The ERT shall not itself perform, participate (physically or otherwise) in

performing, or assume responsibility for, any work, tasks, or functions that relate to the VIWAPA Assistance Program or that VIWAPA is legally obligated to perform or performs in the ordinary course of its business.

**37. Replace Section IX.C with the following new Section IX.C:**

**C. Public Statements**

141. [Reserved]

**38. Add the following sentence to Paragraph 142:**

For BWON and LDAR Equipment, Limetree Bay shall maintain: (1) a database that identifies BWON or LDAR Equipment that is not In Regulated Service and BWON or LDAR Equipment that is In Regulated Service; (2) a database of any change in status of BWON or LDAR Equipment and the date of such change; and (3) records documenting information reported pursuant to Subparagraphs 143.a.v(3) through 143.a.v(4).

**39. Replace Subparagraphs a.iv and a.v of Paragraph 143 with the following new Subparagraphs a.iv and a.v:**

iv. A summary of Limetree Bay's compliance with Paragraph 136, including a description of any exceedances of any Maximum Load Limit set forth in Subparagraph 136.d.iii or as the result of any test conducted pursuant to Subparagraph 136.d.iv(2).

v. Any such additional matters relevant to the obligations of this Consent Decree, including, but not limited to, the following:

(1) A list of In Service Units, Idled Units, and any change(s) in the status of In Service Units or Idled Units from the prior semi-annual reporting period;

(2) Identification of any Idled Unit that is operated for any period prior to Restart, along with the hours, duration, and purpose of such operation, except that this requirement shall not apply to units after they have been Restarted;

(3) A list by area or process unit of BWON and LDAR Equipment that is currently In Regulated Service; and

(4) A list by area or process unit identifying any changes in status of Equipment In Regulated Service from the prior semi-annual reporting period.

**40. Replace Subparagraph 143.b.iii with the following new Subparagraph 143.b.iii:**

143.b.iii. SO<sub>2</sub> emissions in tons per year for each SRP and SO<sub>2</sub> and Reduced Sulfur Compounds (RSC) emissions in tons per year for each SRP using a Beavon unit as a control device.

**41. Replace Paragraph 162 with the following new Paragraph 162:**

162. For failure to comply with applicable NSPS Subparts A and Ja requirements, at the flares listed on Appendix D (“List of Flaring Devices Subject to NSPS Subpart Ja”) after the deadlines for compliance in Paragraphs 49, per Flaring Device:

<u>Period of Non-Compliance</u>	<u>Penalty per Day</u>
1 <sup>st</sup> through 30 <sup>th</sup> Day after deadline	\$500
31 <sup>st</sup> through 60 <sup>th</sup> Day after deadline	\$1,500
Beyond 60 <sup>th</sup> Day after deadline	\$2,000

**42. Insert new Paragraphs 162A, 162B and 162C:**

162A. For failure to install flare gas recovery system(s), if required by Subparagraphs 50B.a, 50B.b, or 50B.c:

<u>Period of Non-compliance</u>	<u>Penalty per Day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$1,200
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$2,500
Beyond 60 <sup>th</sup> day after deadline	\$5,000, or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater

162B. For failure to monitor emissions or flow rate as required by Paragraphs 50A, 50C.a, and 50D, and for failure to maintain records and reports as required by Subparagraphs 50C.b and 50C.c:

<u>Period of Non-compliance</u>	<u>Penalty per Day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$500
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$1000
Beyond 60 <sup>th</sup> day after deadline	\$2,500, or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater

162C. For failure to mitigate emissions, if required by Paragraph 50A and Appendix P (“Flaring Mitigation Projects”):

<u>Period of Non-compliance</u>	<u>Penalty per Day</u>
1 <sup>st</sup> through 30 <sup>th</sup> day after deadline	\$1000
31 <sup>st</sup> through 60 <sup>th</sup> day after deadline	\$2500
Beyond 60 <sup>th</sup> day after deadline	\$5,000, or an amount equal to 1.2 times the economic benefit of non-compliance, whichever is greater

**43. In Paragraph 163, change the Subpart NSPS references “NSPS Subparts J/Ja” to “NSPS Subpart Ja”.**

**44. Replace Subparagraph 165.e with the following new Subparagraph 165.e:**

e. Failure to implement the requirements of Paragraph 112 (Valve Preventive



Maintenance Program):

- i. For failure to install a Low-E Valve or a valve fitted with Low-E Packing when required to do so pursuant to Subparagraph 112.b.ii or 112.b.iii: \$300 per valve.
- ii. For failure to install a Low-E Valve or a valve fitted with Low-E Packing when required to do so pursuant to Subparagraph 112.b.iv: \$10,000 per valve.
- iii. For each failure to record information as required pursuant to Subparagraphs 112.c, 112.e, and 112.f: \$100 per valve.

**45. Replace Paragraph 167 with the following new Paragraph 167:**

167. [Reserved]

**46. Add the following new Paragraph 178A to Part XII (Stipulated Penalties):**

178A. Limetree Bay shall not be liable for any stipulated penalties for non-compliance with Consent Decree requirements where:

- a. the non-compliance began and ended on or prior to January 4, 2016, or
- b. the non-compliance began prior to January 4, 2016 and continued on or after January 4, 2016 for a failure by HOVENSA to timely and fully comply with a submission, notice, recordkeeping, or reporting requirement under the Consent Decree, or
- c. the non-compliance began prior to the Date of Lodging of the First Modification and the Consent Decree requirement was changed, deleted, replaced, or the deadline extended by the First Modification and Limetree Bay complies with the changed, deleted, replaced, or extended requirement or deadline. Limetree Bay will be liable for stipulated penalties, if it fails to comply with the changed, replaced, or extended Consent Decree

requirement or deadline.

Except as set forth in Subparagraph 178A.b or 178A.c, where non-compliance occurred and/or continued on/or after January 4, 2016, regardless of when the non-compliance began, Limetree Bay shall be responsible for stipulated penalties for such continuing non-compliance but only for the time period on/or after January 4, 2016.

**47. Replace Part XVII with the following new Part XVII:**

**XVII. EFFECT OF SETTLEMENT**

199. Definitions. For purposes of this Part XVII (Effect of Settlement), the following definitions apply:

- a. “Applicable NSR/PSD Requirements” shall mean:
  - i. PSD requirements at Part C of Subchapter I of the Act, 42 U.S.C. § 7475, and the regulations promulgated thereunder at 40 C.F.R. §§ 52.21 and 51.166; and the portions of the applicable SIP and related rules adopted as required by 40 C.F.R. §§ 51.165 and 51.166;
  - ii. Any Title V regulations that implement, adopt, or incorporate the specific regulatory requirements identified above; any applicable federally-enforceable territorial regulations that implement, adopt, or incorporate the specific federal regulatory requirements identified above; any Title V permit provisions that implement, adopt, or incorporate the specific regulatory requirements identified above; and
  - iii. Any applicable territorial laws or regulations that implement, adopt, or incorporate the specific federal regulatory requirements identified above

regardless of whether such laws or regulations have been formally approved by EPA as part of the applicable State Implementation Plan.

b. “Applicable NSPS Subparts A and J Requirements” shall mean the standards, monitoring, testing, reporting, and recordkeeping requirements found at 40 C.F.R. §§ 60.100 through 60.109 (Subpart J) relating to a particular pollutant and a particular affected facility, and the corollary general requirements found at 40 C.F.R. §§ 60.1 through 60.19 (Subpart A) that are applicable to any affected facility covered by Subpart J. This term shall also include the requirements of 12 V.I.R. Section 204-45, “Standards of Performance for Sulfur Recovery Units at Petroleum Refineries.”

c. “Applicable NSPS Subparts A and Ja Requirements” shall mean the standards, monitoring, testing, reporting, and recordkeeping requirements found at 40 C.F.R. § 60.100a through 60.109a (Subpart Ja) relating to a particular pollutant and a particular affected facility, and the corollary general requirements found at 40 C.F.R. §§ 60.1 through 60.19 (Subpart A) that are applicable to any affected facility covered by Subpart Ja.

d. “Applicable NSPS Subparts A and D Requirements” shall mean the standards, monitoring, testing, reporting, and recordkeeping requirements found at 40 C.F.R. §§ 60.40 through 60.46 (Subpart D) relating to a particular pollutant and a particular affected facility, and the corollary general requirements found at 40 C.F.R. §§ 60.1 through 60.19 (Subpart A) that are applicable to any affected facility covered by Subpart D.

e. “Applicable NSPS Subparts A and GG Requirements” shall mean the standards, monitoring, testing, reporting, and recordkeeping requirements found at 40 C.F.R. §§ 60.330 through 60.335 (Subpart GG) relating to a particular pollutant and a particular affected

facility, and the corollary general requirements found at 40 C.F.R. §§ 60.1 through 60.19 (Subpart A) that are applicable to any affected facility covered by Subpart GG.

f. “Applicable NSPS Subparts A and QQQ Requirements” shall mean the standards, monitoring, testing, reporting, and recordkeeping requirements found at 40 C.F.R. §§ 60.690 through 60.699 (Subpart QQQ) relating to a particular pollutant and a particular affected facility, and the corollary general requirements found at 40 C.F.R. §§ 60.1 through 60.19 (Subpart A) that are applicable to any affected facility covered by Subpart QQQ.

g. “Benzene Waste NESHAP Requirements” shall mean the requirements imposed by the National Emission Standard for Benzene Waste Operations, 40 C.F.R. Part 61, Subpart FF, and any applicable territorial regulations that implement, adopt or incorporate the Benzene Waste NESHAP.

h. “Delayed Coker Unit Project” or “Coker Project” shall mean the equipment that was newly constructed or modified between August 19, 1999 and May 8, 2002 as follows: Coker Unit process equipment and associated gas plant, process heaters, H-8501 and H-8502, Boiler No. 10, No. 7 Amine, No. 6 Sour Water Stripper, sour water tank, pitch storage tank, desalter effluent water tank, coke cutting water tank, coke pit, Nos. 1 and 2 Sulfur Recovery Plants and associated No. 1 Beavon, the process equipment located in the No. 5 Crude, No. 3 Vacuum, No. 3 Crude, No. 1 Vacuum, No. 1 Visbreaker, and Numbers. 2, 4, 6, and 7 Distillate Desulfurizing Units, and outside battery limit modifications to the terminal, tank farm and blending equipment.

i. “Limetree Bay” shall include Limetree Bay Terminals, LLC, Limetree Bay Refining, LLC, and except with respect to Paragraph 206, HOVENSA.

j. “LDAR Requirements” shall mean the requirements relating to equipment

in light liquid service and gas/vapor service set forth at 40 C.F.R. Part 60, Subparts, VV, VVa, GGG and GGGa; 40 C.F.R. Part 61, Subparts J and V; and 40 C.F.R. Part 63, Subparts F, H, and CC; and any applicable territorial regulations or State Implementation Plan requirements that implement, adopt or incorporate those federal regulations or set similar standards.

k. “Post-Lodging Compliance Dates” shall mean any dates in this Part XVII (Effect of Settlement) after the Date of Lodging. Post-Lodging Compliance Dates include dates certain (e.g., “December 31, 2019”), dates after Lodging represented in terms of “months after Lodging” (e.g., “12 months after the Date of Lodging” or “12 months after Date of Lodging of the First Modification”), and dates after the Date of Lodging represented by actions taken (e.g., “comply with”). The Post-Lodging Compliance Dates represent the dates by which work is required to be completed or an emission limit is required to be met under the applicable provisions of the Consent Decree.

200. Liability Resolution Regarding the Applicable NSR/PSD Requirements. With respect to emissions of the following pollutants from the following units, entry of the Consent Decree resolves all civil liability of Limetree Bay to the United States and the Virgin Islands: (1) for violations of the Applicable NSR/PSD Requirements resulting from the construction or modification of the following units that occurred prior to the Date of Lodging, and that commenced and ceased prior to the Date of Lodging; and (2) for any violations of the Applicable NSR/PSD Requirements resulting from pre-Date of Lodging construction or modification of the following units, that commenced prior to the Date of Lodging and continued up to the following dates:

<b>Unit</b>	<b>Pollutant</b>	<b>Date</b>
FCCU	NO <sub>x</sub>	Date of Entry of the Consent Decree

	SO <sub>2</sub>	Date of Entry of the Consent Decree
	PM	Date of Entry of the Consent Decree
Heaters, boilers, Generating Turbines, and Compressor Engines	NO <sub>x</sub>	December 31, 2019
	SO <sub>2</sub>	Date of Entry of the Consent Decree
Coker Project	H <sub>2</sub> S	December 31, 2012

The limits for VOC, CO, H<sub>2</sub>S, NO<sub>x</sub>, SO<sub>2</sub>, PM, PM-10, and PM<sub>2.5</sub> contained in VIDPNR Permit STX-557A-E-02 for the Coker Project were intended to limit the emissions of these pollutants for purposes of avoiding permitting pursuant to 40 C.F.R. § 52.21. Section VIII.A establishes injunctive relief to resolve EPA's September 18, 2007 NOV, CAA-02-2007-1313, issued to HOVENSA. Limetree Bay may seek relaxation of the emissions limits in Permit STX-557A-E 02 and STX-557-I-00 pertaining to VOC, CO, H<sub>2</sub>S, NO<sub>x</sub>, SO<sub>2</sub>, PM-10, PM, and PM<sub>2.5</sub>, or Reduced Sulfur Compounds upon compliance with the interim limit for the Coker Steam Vents as specified in Subparagraph 132.a and with the interim limit for Beavon Unit #1 as specified in Appendix H ("Additional Coker Project Injunctive Relief"), and all other injunctive relief specified in Appendix H. Such relaxations will not be deemed to constitute a major modification to the Refinery within the meaning of 40 C.F.R. § 52.21(r)(4) and the requirements of Subparagraphs (j) through (s) of 40 C.F.R. § 52.21 shall not apply by virtue of such relaxations.

201. Conditional Resolution of Liability for CO Emissions Under the Applicable NSR/PSD Requirements. With respect to emissions of CO from the FCCU, if and when Limetree Bay accepts an emissions limit pursuant to Paragraph 19 of the Consent Decree and demonstrates compliance using CEMS at the FCCU, then any civil liability of Limetree Bay to

the United States and the Virgin Islands shall be resolved for violations of the Applicable NSR/PSD Requirements relating to CO emissions at the FCCU resulting from pre-Date of Lodging construction or modification of the FCCU that either ceased prior to the Date of Lodging or continued up to the date on which Limetree Bay demonstrates compliance with such CO emissions limit.

202. Reservation of Rights Regarding Applicable NSR/PSD Requirements: Release for Violations Continuing After the Date of Lodging Can Be Rendered Void. Notwithstanding the resolution of liability in Paragraphs 200 and 201, the releases of liability by the United States and the Virgin Islands to Limetree Bay for violations of the Applicable NSR/PSD Requirements during the period between the Date of Lodging and the Post- Lodging Compliance Dates shall be rendered void if Limetree Bay materially fails to comply with the corresponding obligations and requirements of Part V (Affirmative Relief/Environmental Projects), Sections V.A through V.E (relating to the FCCU), Sections V.F through V.H (relating to heaters, boilers, Generating Turbines and Compressor Engines), and Part VIII (Additional Injunctive Relief); provided, however, that the releases in Paragraphs 200 and 201 shall not be rendered void if Limetree Bay remedies such material failure and pays any stipulated penalties due as a result of such material failure.

203. Exclusions from Release Coverage Regarding Applicable NSR/PSD Requirements in the Consent Decree: Construction and/or Modification Not Covered. Notwithstanding the resolution of liability in Paragraphs 200 and 201, nothing in the Consent Decree precludes the United States or the Virgin Islands from seeking injunctive relief, penalties, or other appropriate relief from Limetree Bay for violations by Limetree Bay of the Applicable NSR/PSD Requirements resulting from: (i) construction or modification that commenced prior

to the Date of Lodging, if the resulting violations relate to pollutants or units not covered by the Consent Decree; or (ii) any construction or modification that commences after the Date of Lodging.

204. Evaluation of Applicable NSR/PSD Requirements. Increases in emissions from units covered by the Consent Decree, where the increases result from construction or modification of any units within the Refinery, after January 4, 2016, are beyond the scope of the release in Paragraphs 200 and 201, and Limetree Bay is not relieved from any obligation to evaluate any such increases in accordance with the Applicable NSR/PSD Requirements.

205. Resolution of Liability Regarding Applicable NSPS Requirements. With respect to emissions of the following pollutants from the following units, entry of the Consent Decree resolves all civil liability of Limetree Bay to the United States and the Virgin Islands for violations of the applicable NSPS Subparts, referenced in Paragraph 199.b through f, listed below from the date that the claims of the United States and the Virgin Islands accrued up to the specified Post-Lodging Compliance Date:



<b>Unit</b>	<b>Applicable NSPS Subpart</b>	<b>Pollutant</b>	<b>Date</b>
FCCU	A and J	SO <sub>2</sub> , CO, and PM	Date of Lodging of the Consent Decree
		PM (opacity monitoring requirements)	Date of AMP approval receipt (see Paragraph 22)
FCCU Turboexpander Vents	A and J	SO <sub>2</sub> , CO, PM (opacity)	Date of Lodging of the Consent Decree
All fuel gas combustion devices listed in Appendix C (“NSPS Subpart J or Ja Compliance Schedule for Listed Fuel Gas Combustion Devices (Other than Flaring Devices)”)	A, J, and Ja, as applicable	SO <sub>2</sub>	Dates listed in Appendix C (“NSPS Subpart J or Ja Compliance Schedule for Listed Fuel Gas Combustion Devices (Other than Flaring Devices)”)
Flaring Devices	A, J, and Ja	SO <sub>2</sub>	Dates listed in Appendix D (“List of Flaring Devices Subject to NSPS Subpart Ja”)
East Side SRP	A, J and Ja	SO <sub>2</sub> and TRS	April 1, 2015
West Side SRP	A, J and Ja	SO <sub>2</sub> and TRS	December 31, 2011
Generating Turbines 1-3 and 6	A and GG	NO <sub>x</sub> and SO <sub>2</sub>	Five (5) years from Date of Entry of the Consent Decree
Generating Turbines 4, 7 and 8	A and GG	NO <sub>x</sub> and SO <sub>2</sub>	December 31, 2020
Generating Turbine 5 and 9	A and GG	NO <sub>x</sub> and SO <sub>2</sub>	Date of Lodging of the First Modification
Boilers 5, 8, and 9	A and D	NO <sub>x</sub> , SO <sub>2</sub> , and PM	July 31, 2012 (or 12/31/2015 for Boiler 5 if replaced)
The FCCU and Coker Drain Systems	A and QQQ	VOC	December 31, 2012

206. Reservation of Rights Regarding Applicable NSPS Requirements: Release for Violations Continuing After the Date of Lodging Can Be Rendered Void. Notwithstanding the resolution of liability in Paragraph 205, the releases of liability by the United States and the Virgin Islands to Limetree Bay for violations of the applicable NSPS Subparts listed in Paragraph 205 shall be rendered void if Limetree Bay fails to comply with the obligations and requirements of Parts V (Affirmative Relief/Environmental Projects), VI (Permitting) and VIII (Additional Injunctive Relief) (relating to NSPS requirements); provided, however, that the releases in Paragraph 205 shall not be rendered void if Limetree Bay remedies such failure and pays any stipulated penalties due as a result of such failure.

207. Resolution of Liability for Coker Project. Entry of the Consent Decree resolves all civil and administrative liability, commencing with the beginning of construction of the Coker Project through completion of the injunctive relief required pursuant to Paragraphs 132 through 134, of Limetree Bay to the United States and Virgin Islands for the following:

- a. EPA's November 22, 2006 NOV, CAA-02-2007-1303, issued to HOVENSA for alleged violations arising under HOVENSA's Coker Operating Permit STX-557A-E-02, and HOVENSA's written notification dated January 9, 2008, to the Virgin Islands of calculated exceedances on January 2, 2008, of Coker Process Heater (H-8501B) of PM and VOC limits in the Coker Operating Permit;
- b. The findings of violation in Paragraphs 49 through 55 of EPA's September 18, 2007 NOV, CAA-02-2007-1313, issued to HOVENSA, and any other violations of the permitting regulations cited in Paragraphs 49 through 55 of the NOV with respect to the Coker Project; and
- c. EPA's March 20, 2007 Compliance Order, CAA-02-2007-1004, as

amended on April 5, 2007 by Compliance Order, CAA-02-2007-1004a, arising from HOVENSA's alleged failure to provide complete responses to EPA's December 21, 2006 Information Request Letter, issued pursuant to § 114 of the Clean Air Act.

208. Resolution of Liability Regarding Benzene Waste NESHAP Requirements. Entry of the First Modification of the Consent Decree resolves all civil liability of Limetree Bay to the United States and the Virgin Islands for violations of the statutory and regulatory requirements set forth below in Subparagraphs a - c that (i) commenced and ceased prior to the Date of Entry of the First Modification, and/or (ii) commenced prior to the Date of Entry of the First Modification and continued past the Date of Entry of the First Modification (including violations discovered after the Date of Entry of the First Modification for BWON Equipment returned to In Regulated Service on or after the Date of Entry of the First Modification), provided that the events giving rise to such violations are identified by Limetree Bay in its BWON Compliance Review and Verification Report submitted pursuant to Paragraph 79 and corrected by Limetree Bay as required under Paragraph 80.

a. Benzene Waste NESHAP. The National Emission Standard for Benzene Waste Operations, 40 C.F.R. Part 61, Subpart FF, promulgated pursuant to Section 112(e) of the Act, 42 U.S.C. § 7412(e), including any federal regulation that adopts or incorporates the requirements of Subpart FF by express reference, but only to the extent of such adoption or incorporation;

b. Any applicable, federally-enforceable permits or territorial regulations that implement, adopt, or incorporate the specific federal regulatory requirements identified in Subparagraph a.

c. Any applicable territorial regulations enforceable by the Virgin Islands

that implement, adopt, or incorporate the specific federal regulatory requirements identified in Subparagraph a.

209. Resolution of Liability Regarding LDAR Requirements. Entry of the First Modification of the Consent Decree resolves all civil liability of Limetree Bay to the United States and the Virgin Islands for violations of the statutory and regulatory requirements set forth below in Subparagraphs a - c that (i) commenced and ceased prior to the Date of Entry of the First Modification, and/or (ii) commenced prior to the Date of Entry of the First Modification and continued past the Date of Entry of the First Modification (including violations discovered after the Date of Entry of the First Modification for LDAR Equipment returned to In Regulated Service on or after the Date of Entry of the First Modification), provided that the events giving rise to such violations are identified by Limetree Bay in its Initial Compliance Audit Report submitted pursuant to Subparagraph 106.a and corrected by Limetree Bay as required under Paragraph 107:

a. LDAR Requirements. For all equipment in light liquid and gas and/or vapor service, the LDAR requirements promulgated by EPA pursuant to Sections 111 and 112 of the Clean Air Act and codified at 40 C.F.R. Part 60, Subparts VV, VVa, GGG and GGGa, 40 C.F.R. Part 61, Subparts J and V, and 40 C.F.R. Part 63, Subparts F, H, and CC;

b. Any applicable, federally-enforceable permits or territorial regulations that implement, adopt, or incorporate the specific regulatory requirements identified in Subparagraph a; and

c. Any applicable territorial regulations or permits enforceable by the Virgin Islands that implement, adopt, or incorporate the specific regulatory requirements identified in Subparagraph a.

210. Reservation of Rights Regarding Benzene NESHAP and LDAR Requirements.

Notwithstanding the resolution of liability in Paragraphs 208 and 209, nothing in the Consent Decree precludes the United States and/or the Virgin Islands from seeking from Limetree Bay injunctive and/or other equitable relief or civil penalties for violations by Limetree Bay of Benzene Waste NESHAP and/or LDAR requirements that (i) commenced and ceased prior to the Date of Entry of the First Modification, and/or (ii) commenced prior to the Date of Entry of the First Modification and continued after the Date of Entry of the First Modification (including violations discovered after the Date of Entry of the First Modification for BWON and LDAR Equipment returned to In Regulated Service on or after the Date of Entry of the First Modification) if Limetree Bay fails to identify and address such violations as required by Paragraphs 79, 80, 106.a, and 107.

211. Audit Policy. Nothing in the Consent Decree is intended to limit or disqualify Limetree Bay, on the grounds that information was not discovered and supplied voluntarily, from seeking to apply EPA's Audit Policy to any violations or noncompliance that Limetree Bay discovers during the course of any investigation, audit, or enhanced monitoring that Limetree Bay is required to undertake pursuant to the Consent Decree.

212. Claim/Issue Preclusion. In any subsequent administrative or judicial proceeding initiated by the United States or the Virgin Islands for injunctive relief, penalties, or other appropriate relief relating to Limetree Bay violations of the PSD/NSR, NSPS, Benzene Waste NESHAP, and/or LDAR requirements not identified in this Part XVII (Effect of Settlement):

a. Limetree Bay shall not assert, and may not maintain, in any subsequent administrative, civil, or criminal action commenced by the United States or the Virgin Islands any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue

preclusion, or claim-splitting. Nor may Limetree Bay assert or maintain any other defenses based upon any contention that the claims raised by the United States or the Virgin Islands in the subsequent proceeding should have been brought in the instant case. Nothing in the preceding sentences is intended to affect the ability of Limetree Bay to assert that the claims are deemed resolved by virtue of this Part XVII (Effect of Settlement).

b. Except as set forth in Subparagraph a, the United States and the Virgin Islands may not assert or maintain that the Consent Decree constitutes a waiver or determination of, or otherwise obviates, any claim or defense whatsoever, or that the Consent Decree constitutes acceptance by Limetree Bay of any interpretation or guidance issued by EPA related to the matters addressed in the Consent Decree.

213. Imminent and Substantial Endangerment. Nothing in the Consent Decree shall be construed to limit the authority of the United States and the Virgin Islands to undertake any action against any person, including Limetree Bay, to abate or correct conditions which may present an imminent and substantial endangerment to the public health, welfare, or the environment.

213A. The resolution of liability in Paragraphs 200, 201, 205, 207, 208, and 209 of the Consent Decree shall not be rendered void by the inability of an Idled Unit or BWON and LDAR Equipment not In Regulated Service to demonstrate compliance with an applicable Consent Decree requirement during the time that the Idled Unit was not operating or the BWON and LDAR Equipment was not In Regulated Service, until the unit or equipment demonstrates compliance as required by Paragraph 229A.b. In accordance with Paragraph 229A, Idled Units and BWON and LDAR Equipment not In Regulated Service that comply with Subparagraph 229A.b, shall be considered in compliance with the Consent Decree for purposes of Section V.M

(Stipulated Penalties Under This Section) and Part XII (Stipulated Penalties).

**48. Replace Paragraph 221 with the following new Paragraph 221.**

221. Post-Lodging, Pre-Entry Obligations. Obligations of Limetree Bay under this Consent Decree to perform duties after the Date of Lodging of the First Modification but prior to the Date of Entry of the First Modification shall be legally enforceable only on or after the Date of Entry of the First Modification. Liability for stipulated penalties, if applicable, shall accrue for violations of such obligations, and the United States or the Virgin Islands may demand payment as provided in the Decree, provided that stipulated penalties accruing between the Date of Lodging of the First Modification and the Date of Entry of the First Modification may not be collected unless and until the First Modification of the Consent Decree is entered by the Court.

**49. Replace Paragraph 225 with the following new Paragraph 225:**

225. Notice. Unless otherwise provided herein, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing and addressed as follows:

As to the United States, by email:

Eescdcopy.enrd@usdoj.gov  
Re: DJ# 90-5-2-1-08229/1

As to the United States, by mail:

EES Case Management Unit  
Environment and Natural Resources Division  
U.S. Department of Justice  
P.O. Box 7611  
Washington, DC 20044-7611  
DJ# 90-5-2-1-08229/1

As to EPA Headquarters, by mail:

Director  
Air Enforcement Division

Office of Civil Enforcement (2242A)  
Office of Enforcement and Compliance Assurance  
U.S. Environmental Protection Agency  
1200 Pennsylvania Ave., N.W.  
Washington, DC 20044

Director  
Air Enforcement Division  
Office of Civil Enforcement  
c/o Matrix New World Engineering, Inc.  
26 Columbia Turnpike, Suite 200  
Florham Park, NJ 07932-2213

And an electronic copy, in .pdf format, to:

[foley.patrick@epa.gov](mailto:foley.patrick@epa.gov)

As to EPA Region 2, by mail:

Director  
Enforcement and Compliance Assurance Division  
U.S. EPA Region 2  
290 Broadway, 21<sup>st</sup> Floor  
New York, NY 10007-1866

United States Environmental Protection Agency  
Region 2  
Office of Regional Counsel  
290 Broadway  
New York, NY 10007

Director, Caribbean Environmental Protection Division  
U.S. EPA Region 2  
City View Plaza II, Suite 7000  
#48 Rd. 165 km 1.2  
Guaynabo, PR 00968-8069

And an electronic copy, in .pdf format, to:

[patel.harish@epa.gov](mailto:patel.harish@epa.gov)

At its option, in lieu of submitting hardcopies to EPA Headquarters and EPA Region 2 by mail, Limetree Bay may submit electronically, in .pdf format, all notifications, submissions, or



communications that are required by this Consent Decree to:

jmack@matrixnewworld.com  
foley.patrick@epa.gov  
patel.harish@epa.gov

As to the United States Virgin Islands and VIDPNR, by mail and hand-delivery:

Director, Division of Environmental Protection  
Virgin Islands Department of Planning and Natural Resources  
45 Estate Mars Hill  
Frederiksted, St. Croix, U.S. Virgin Islands 00840-4474

And an electronic copy, in .pdf format, to:

jp.oriol@dpr.vi.gov

As to Limetree Bay:

Limetree Bay Terminals, LLC  
General Counsel  
One Estate Hope  
Christiansted, USVI 00820  
dmolloy@lbenenergy.com

Limetree Bay Refining, LLC  
General Counsel  
One Estate Hope  
Christiansted, USVI 00820  
dmolloy@lbenenergy.com

And electronic copy, in .pdf format, to:

celizee@lbenenergy.com  
rbiggs@lbenenergy.com  
leannjohnson@perkinscoie.com

As to the ERT:

Roberto Puga  
PathForward Consulting Inc.  
32915 Danaoak  
Dana Point, CA 92629  
rpuga@pathforwardconsult.com

Mary Koks  
Munsch Hardt Kopf & Harr P.C.  
700 Milam Street  
Suite 2700  
Houston, TX 77002-2806

a. Unless otherwise provided herein, notifications, submissions or communications between the Parties shall be deemed submitted on the date they are postmarked and sent by U.S. Mail or overnight mail, postage prepaid, or the date of electronic submissions, as applicable. Notices under Part XV (Force Majeure) and Part XVI (Retention of Jurisdiction/Dispute Resolution) shall be sent by overnight mail or by certified or registered mail, return receipt requested.

b. Notifications to or communications mailed to Limetree shall be deemed to be received on the earlier of (i) actual receipt by Limetree or (ii) receipt of an electronic version sent to the addressees set forth in this Paragraph.

c. If the date for submission of a report, study, notification, or other communication falls on a Saturday, Sunday, or federal or territorial holiday, the report, study, notification, or other communication will be deemed timely if it is submitted the next Working Day.

**50. Add the following sentence to Paragraph 229.**

As of the Date of Entry of the First Modification, the emissions units listed in Appendix N have been permanently Shutdown.

**51. Add the following new Paragraph 229A “Effect of Idling” to Part XVIII (General Provisions):**

229A. Effect of Idling

a. Stipulated Penalties for Idled Units and BWON and LDAR Equipment Not in Regulated Service.

i. Idled Units and BWON and LDAR Equipment not In Regulated Service that comply with Subparagraph 229A.b, shall be considered in compliance with the Consent Decree for purposes of Section V.M (Stipulated Penalties Under This Section) and Part XII (Stipulated Penalties).

ii. Limetree Bay shall not be required to report, pursuant to the Consent Decree, non-compliance with the Consent Decree requirements applicable to an Idled Unit or BWON and LDAR Equipment not In Regulated Service prior to the Restart of the Idled Unit or BWON and LDAR Equipment.

b. Restart of Idled Units, and BWON and LDAR Equipment not In Regulated Service.

i. Idled Units and BWON and LDAR Equipment not In Regulated Service shall comply with the applicable Consent Decree requirements upon Restart of an Idled Unit or after BWON and LDAR equipment is placed back In Regulated Service, unless an exception applies as provided in Subparagraph 229A.b.ii.

ii. Appendix L Restart Compliance Exceptions.

(1) Idled Units and BWON and LDAR Equipment not In Regulated Service that are subject to an exception in Appendix L (“Exceptions for Compliance on Restart”) and that comply with applicable Appendix L requirements shall be considered in compliance with the corresponding Consent Decree requirements for purposes of Section V.M

(Stipulated Penalties for Acid Gas Flaring) and Part XII (Stipulated Penalties).

(2) If Limetree Bay fails to meet an interim FCCU emission limit established in Appendix L, Limetree Bay shall be subject to the stipulated penalties under Paragraph 151.

(3) For Idled Units and BWON and LDAR Equipment not In Regulated Service that are subject to an Appendix L exception for Consent Decree stack testing, performance testing, or monitoring requirements, Limetree Bay shall be subject to stipulated penalties for violating the corresponding applicable Consent Decree requirement from the Day after the applicable Appendix L deadline.

iii. If an Idled Unit is required by the Consent Decree to comply with a 365-Day rolling average, 7-Day rolling average or other emission rate based on an average of emissions for more than one Operating Day or hour in an Operating Day, compliance with the emissions limit shall be determined by using emissions data from Operating Days after Restart.

**52. Replace Subparagraph 234.e with the following new Subparagraph 234.e:**

e. Application for and receipt of permits incorporating the emission limits and standards in Appendix O; and

**53. Add the following new Paragraph 234A to Part XIX (Termination):**

234A. Exceptions to Conditions Precedent to Termination:

The conditions precedent to termination in Subparagraphs 234.b and f, to comply with all provisions contained in the Consent Decree, and operate for at least one (1) year in compliance

with the emission limits established in the Consent Decree, shall not apply to a unit that is an Idled Unit and has not yet demonstrated compliance with specifically identified Consent Decree requirements applicable to the unit in Part V (Affirmative Relief / Environmental Projects) because, except for Flare 7, the unit has not operated since June 1, 2012, or for Flare 7, the unit has not operated after it was isolated and Shutdown as provided in Paragraph 50E.

At such time as Limetree Bay believes it has satisfied the requirements to move for termination under Paragraph 234, Limetree Bay may satisfy the requirements of Subparagraphs 234.b and f by certifying that: (a) the unit is an Idled Unit, (b) for units other than Flare 7, that there have been no emissions from the Idled Unit since June 1, 2012, or for Flare 7, there have been no emissions from Flare 7 after it was isolated and Shutdown as provided in Paragraph 50E, and (c) that all surviving emission limits and standards applicable to the Idled Unit are incorporated into permits as required by Paragraphs 124 - 126 and Appendix O. Neither the United States nor the Virgin Islands shall object to Limetree Bay's certification on the grounds that Limetree Bay failed to complete Consent Decree requirements applicable to an Idled Unit if Limetree Bay was not able to do so because, for units other than Flare 7, the unit has not operated since June 1, 2012, or for Flare 7, the unit has not operated after it was isolated and Shutdown as provided in Paragraph 50E.

**54. Replace Paragraph 235 with the following New Paragraph 235:**

235. Termination: Procedure. At such time as Limetree Bay believes that it has satisfied the requirements for termination set forth in Paragraph 234, Limetree Bay will certify such compliance and completion to the United States and the Virgin Islands in accordance with the certification language of Paragraph 231. Unless either the United States or the Virgin Islands objects in writing with specific reasons within 120 days of receipt of Limetree Bay's certification

under this Paragraph, the Court may upon motion by Limetree Bay order that this Consent Decree be terminated. At the time the Court orders the Consent Decree to be terminated, any remaining monies in the TSEP Escrow Account shall be disbursed to the VIDPNR in accordance with Subparagraph 137.e. If either the United States or the Virgin Islands objects to the certification submitted by Limetree Bay, then the matter will be submitted to the Court for resolution under Part XVI (Retention of Jurisdiction/Dispute Resolution). In such case, Limetree Bay will bear the burden of proving that this Consent Decree should be terminated. HOVENSA's certification of completion in Appendix Q may be used by Limetree Bay to satisfy the requirements for certification in Paragraphs 230 and 231, subject to Paragraphs 232 (EPA review) and 233 (stipulated penalties), for purposes of satisfying the requirements for termination of the Consent Decree.

**55. Replace the following appendices with the following new appendices, which are attached:**

- Appendix C NSPS Subparts J or Ja Compliance Schedule for Listed Fuel Gas Combustion Devices (Other than Flaring Devices)
- Appendix D List of Flaring Devices Subject to NSPS Subpart Ja
- Appendix E Limetree Bay's LDAR and BWON Training Program Summary
- Appendix F Method 21 Monitoring Locations for API Separators 1, 2, and 3
- Appendix G [Reserved]
- Appendix H Additional Coker Project Injunctive Relief

**56. Add the following new appendices, which are attached:**

- Appendix J In Service Units and the BWON and LDAR Equipment In Regulated Service
- Appendix K List of Idled Units
- Appendix L Exceptions for Compliance on Restart

Appendix M Process and Factors for “Commercial Unavailability” of Low-E Valve or Packing

Appendix N Emissions Units Permanently Shutdown as of June 1, 2019

Appendix O Requirements That Shall Survive Termination of the Consent Decree

Appendix P Flaring Mitigation Projects

Appendix Q HOVENSA Certification

Appendix R Map of Refinery

Appendix S Map of H<sub>2</sub>S Monitoring Locations

**57.** The Table of Appendices will be revised consistent with Paragraphs 55 and 56 of the First Modification.

**58.** Except as specifically provided in the First Modification, all other terms and conditions of the Consent Decree remain unchanged and in full effect.

**59.** No party to the First Modification (the United States, the Virgin Islands, HOVENSA, Limetree Bay, and the ERT) will oppose entry of the First Modification by this Court or challenge any provision of the First Modification unless the United States has notified each of those parties, in writing, that the United States no longer supports entry of the First Modification.

SO ORDERED, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2020.

\_\_\_\_\_  
VIRGIN ISLANDS DISTRICT JUDGE

THE UNDERSIGNED PARTY enters into the First Modification of the Consent Decree  
in the matter of United States, et al. v. HOVENSA L.L.C.

FOR PLAINTIFF THE UNITED STATES  
OF AMERICA:

JEFFREY BOSSERT CLARK  
Assistant Attorney General  
Environment and Natural Resources  
Division  
United States Department of Justice

Date: 8/21/2020

Myles E. Flint, II  
MYLES E. FLINT, II  
Senior Counsel  
Environmental Enforcement Section  
Environment and Natural Resources  
Division  
United States Department of Justice  
P.O. Box 7611  
Ben Franklin Station  
Washington, D.C. 20044-7611  
(202) 307-1859

GRETCHEN C.F. SHAPPERT  
United States Attorney  
District of the Virgin Islands  
Federal Building and U.S. Courthouse  
5500 Veterans Drive, Room 260  
St. Thomas, USVI 00802



THE UNDERSIGNED PARTY enters into the First Modification of the Consent Decree  
in the matter of United States, et al. v. HOVENSA L.L.C.

Date:

2/27/20

FOR THE UNITED STATES  
ENVIRONMENTAL PROTECTION  
AGENCY:



SUSAN PARKER BODINE  
Assistant Administrator  
Office of Enforcement and Compliance  
Assurance  
U.S. Environmental Protection Agency

ROSEMARIE A. KELLEY  
Director  
Office of Civil Enforcement  
Office of Enforcement and Compliance  
Assurance  
U.S. Environmental Protection Agency

EVAN BELSER  
Acting Director  
Air Enforcement Division  
Office of Civil Enforcement  
Office of Enforcement and Compliance  
Assurance  
U.S. Environmental Protection Agency

THE UNDERSIGNED PARTY enters into the First Modification of the Consent Decree  
in the matter of United States, et al. v. HOVENSA L.L.C.

FOR PLAINTIFF THE UNITED STATES  
ENVIRONMENTAL PROTECTION  
AGENCY  
REGION 2:

**ERIC SCHAAF** Digitally signed by ERIC SCHAAF  
Date: 2020.07.15 17:31:49 -04'00'

Date: \_\_\_\_\_

\_\_\_\_\_  
ERIC SCHAAF  
Regional Counsel  
United States Environmental Protection  
Agency  
Region 2  
290 Broadway  
New York, NY 10007-1866

OF COUNSEL:

FLAIRE MILLS  
Associate Regional Counsel  
United States Environmental Protection Agency  
Region 2  
290 Broadway  
New York, NY 10007-1866

THE UNDERSIGNED PARTY enters into the First Modification of the Consent Decree  
in the matter of United States, et al v. HOVENSA L.L.C.


Date:

July 21, 2020

FOR PLAINTIFF THE UNITED STATES  
VIRGIN ISLANDS:

  
PAMELA R. TEPPER  
Solicitor General


U.S. Virgin Islands Department of Justice  
34-38 Kronprindsens Gade  
GERS Complex, 2<sup>nd</sup> Floor  
St. Thomas, VI 00802

  
JEAN-PIERRE L. ORIOL  
Commissioner  
Government of the United States Virgin  
Islands  
Department of Planning & Natural  
Resources  
45 Estate Mars Hill  
Frederiksted, VI 00840

THE UNDERSIGNED PARTY enters into the First Modification of the Consent Decree  
in the matter of United States, et al v. HOVENSA L.L.C.

FOR DEFENDANT HOVENSA L.L.C.:

Date: 7/13/2020

  
\_\_\_\_\_  
MATTHEW R. KAHN  
c/o Alvarez & Marsal North America, LLC  
Attn: Tom Hill  
540 W. Madison St, 18<sup>th</sup> Floor  
Chicago, IL 60661

THE UNDERSIGNED PARTY enters into the First Modification of the Consent Decree  
in the matter of United States, et al v. HOVENSA L.L.C.

FOR LIMETREE BAY TERMINALS,  
LLC:

Date: 6/18/20



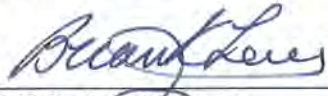
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BRIAN K. LEVER  
President and Chief Executive Officer  
Limetree Bay Terminals, LLC  
One Estate Hope  
Christiansted, USVI 00820

THE UNDERSIGNED PARTY enters into the First Modification of the Consent Decree  
in the matter of United States, et al v. HOVENSA L.L.C.

FOR LIMETREE BAY REFINING, LLC:

Date: 6/18/20

  
\_\_\_\_\_  
BRIAN K. LEVER  
President  
Limetree Bay Refining, LLC  
One Estate Hope  
Christiansted, USVI 00820

THE UNDERSIGNED PARTY enters into the First Modification of the Consent Decree  
in the matter of United States, et al v. HOVENSA L.L.C.

FOR THE ENVIRONMENTAL  
RESPONSE TRUST:

Date: \_\_\_\_\_

7/9/20



ROBERTO PUGA

Agent for PathForward Consulting Inc. not in  
its individual capacity, but solely as the  
Trustee of the Hovensa Environmental  
Response Trust

One World Trade Center, 8<sup>th</sup> Floor  
Long Beach, CA 90831

**APPENDIX C****NSPS SUBPARTS J OR JA COMPLIANCE SCHEDULE FOR LISTED FUEL GAS COMBUSTION DEVICES (OTHER THAN FLARING DEVICES)**

FUEL GAS COMBUSTION DEVICES FOR WHICH COMPLIANCE RESPONSIBILITY IS ASSIGNED TO THE ERT		
Unit		Date of Compliance With Subpart J Fuel Gas Limit
VER-1*	VER-1	Date of Lodging
VER-2*	VER-2	Date of Lodging
* Compliance based upon AMP submittal for EPA approval		

FUEL GAS COMBUSTION DEVICES FOR WHICH COMPLIANCE RESPONSIBILITY IS ASSIGNED TO LIMETREE BAY		
Unit		Date of Compliance With Subpart J Fuel Gas Limit
2 Vis.	H-2185	Date of Lodging
Coker	H-8501A	Date of Lodging
Coker	H-8501B	Date of Lodging
LSG Heater	H-4901	Date of Lodging
Sulf Acid*	STK-7801	Date of Lodging
GT-13 / HRSG	G-3413 / H-3413	Date of Lodging



FUEL GAS COMBUSTION DEVICES FOR WHICH COMPLIANCE RESPONSIBILITY IS ASSIGNED TO LIMETREE BAY		
Unit		Date of Compliance With Subpart Ja Fuel Gas Limit
1 Vis.	H-101	12/31/2015
1 Vis.	H-104	12/31/2015
Utl. Fract.	H-160	12/31/2015
Penex	H-200	12/31/2015
Penex	H-201	12/31/2015
Penex	H-202	12/31/2015
Penex	C-200A	12/31/2015
Penex	C-200B	12/31/2015
Penex	C-200C	12/31/2015
2 CDU	H-401A	12/31/2015
2 CDU	H-401B	12/31/2015
2 CDU	H-401C	12/31/2015
2 Plat.	H-600	12/31/2015
2 Plat.	H-601	12/31/2015
2 Plat.	H-602	12/31/2015
2 Plat.	H-603	12/31/2015
2 Plat.	H-604	12/31/2015
2 Plat.	H-605	12/31/2015
2 Plat.	H-606	12/31/2015
2 DD	H-800A	12/31/2015
2 DD	H-800B	12/31/2015
2 DD	H-801	12/31/2015
3 CDU	H-1401A	12/31/2015
1 Vac.	H-1401B	12/31/2015
3 DD	H-1500	12/31/2015
3 DD	H-1501	12/31/2015
3 DD	C-1500A	12/31/2015
3 DD	C-1500B	12/31/2015
3 DD	C-1500C	12/31/2015
2 Vac.	H-2101	12/31/2015
2 Vac.	H-2102	12/31/2015
4 DD	H-2201A	12/31/2015
4 DD	H-2201B	12/31/2015
4 DD	H-2202	12/31/2015

FUEL GAS COMBUSTION DEVICES FOR WHICH COMPLIANCE RESPONSIBILITY IS ASSIGNED TO LIMETREE BAY		
Unit		Date of Compliance With Subpart Ja Fuel Gas Limit
5 DD	H-2400	12/31/2015
5 DD	H-2401	12/31/2015
5 DD	C-2400A	12/31/2015
5 DD	C-2400B	12/31/2015
Naph Frac	H-2501	12/31/2015
1 SRU	H-1032	12/31/2015
2 SRU	H-1042	12/31/2015
1 Beavon	H-1061	12/31/2015
#1 F. Boiler	B-1151	12/31/2015
#3 F. Boiler	B-1153	12/31/2015
#4 F. Boiler	B-1154	12/31/2015
#5 F. Boiler	B-1155	12/31/2015
GT-1*	G-1101E	12/31/2015
GT-2*	G-1101F	12/31/2015
GT-3*	G-1101G	12/31/2015

FUEL GAS COMBUSTION DEVICES FOR WHICH COMPLIANCE RESPONSIBILITY IS ASSIGNED TO LIMETREE BAY		
Unit		Date of Compliance With Subpart J Fuel Gas Limit
5 CDU	H-3101A	12/31/15
5 CDU	H-3101B	12/31/15
6 CDU	H-4101A	12/31/15
6 CDU	H-4101B	12/31/15
3 Vac.	H-4201	12/31/15
3 Vac.	H-4202	12/31/15
7 DD	H-4301A	12/31/15
7 DD	H-4301B	12/31/15
7 DD	H-4302	12/31/15
3 Plat.	H-4401	12/31/15
3 Plat.	H-4402	12/31/15
3 Plat.	H-4451	12/31/15
3 Plat.	H-4452	12/31/15
3 Plat.	H-4453	12/31/15
3 Plat.	H-4454	12/31/15
3 Plat.	H-4455	12/31/15
2 Sulf.	H-4502	12/31/15
2 Sulf.	H-4503	12/31/15
2 Sulf.	H-4504	12/31/15
2 Sulf.	H-4505	12/31/15
6 DD	H-4601A	12/31/15
6 DD	H-4601B	12/31/15
6 DD	H-4602	12/31/15
6 DD	C-4601A	12/31/15
6 DD	C-4601B	12/31/15
6 DD	C-4601C	12/31/15
9 DD	H-5301A	12/31/15
9 DD	H-5301B	12/31/15
9 DD	H-5302	12/31/15
4 Plat.	H-5401	12/31/15
4 Plat.	H-5402	12/31/15
4 Plat.	H-5451	12/31/15
4 Plat.	H-5452	12/31/15
4 Plat.	H-5453	12/31/15

FUEL GAS COMBUSTION DEVICES FOR WHICH COMPLIANCE RESPONSIBILITY IS ASSIGNED TO LIMETREE BAY		
Unit		Date of Compliance With Subpart J Fuel Gas Limit
4 Plat.	H-5454	12/31/15
4 Plat.	H-5455	12/31/15
3 & 4 SRU	H-4745	12/31/15
2 Beavon	H-4761	12/31/15
#6 F. Boiler	B-3301	12/31/15
#7 F. Boiler	B-3302	12/31/15
#8 F. Boiler	B-3303	12/31/15
#9 F. Boiler	B-3304	12/31/15
#10 F. Boiler	B-3701	12/31/15
GT-4	G-3404	12/31/15
GT-5	G-3405	12/31/15
GT-6	G-3406	12/31/15
GT-7	G-3407	12/31/15
GT-8*	G-3408	12/31/15
GT-9*	G-3409	12/31/15
GT-10*	G-3410	12/31/15
* Compliance based upon AMP submittal for EPA approval		

**APPENDIX D**  
**LIST OF FLARING DEVICES SUBJECT TO NSPS SUBPART Ja**

Flaring Device	Date
FCCU Low Pressure Flare and Flare 3	Restart
FCCU High Pressure Flare	Five (5) years from Date of Entry of the Consent Decree (June 7, 2016)
LPG Flare	Five (5) years from Date of Entry of the Consent Decree (June 7, 2016)
Flares 2	Seven (7) years from Date of Entry of the Consent Decree (June 7, 2018)
Flares 5, 6 and 7	Ten (10) years from Date of Entry of the Consent Decree (June 7, 2021)

Flares 1 and 4 are no longer in service and are not subject to this Consent Decree.

## **APPENDIX E**

### **Limetree Bay's LDAR and BWON Training Program Summary**

The Limetree Bay training program will utilize a combination of training methods to educate refinery personnel on their roles and responsibilities within the LDAR and BWON programs. The extent of education on the programs (two hours, four hours, eight hours, etc.) will be based on the employee's job assignment within their respective department and the individual's management level.

All Environmental LDAR personnel will be trained on an annual basis on the requirements of their jobs through classroom based, computer-based, field-based, or other training methods. The training will consist of specific material and processes required for the knowledge of the program including certification testing. Listed below are some of the key elements and subjects of the training module that link to roles and responsibilities.

- knowledge of the refinery structure and systems
- refinery basics: process unit functions individually and how they work in partnership
- how to read and understand P&IDs and ISOS
- the applicable regulations
- the proper operation of monitoring equipment
- applicable LDAR procedures
- the systems in place to manage our data and compliance; electronic database such as LeakDAS and like systems
- the checks and balances required to maintain quality control and compliance
- the leadership skills required to manage and maintain a successful program

All other Operations, Maintenance and Contractor personnel will be trained on the requirements of their jobs through classroom based, computer-based, field-based, or other training methods. The training consists of material and processes required for their specific role and responsibility needed to ensure knowledge of the program including certification testing. Listed below are some of the key elements and subjects of the training module.

- knowledge of Environmental Department structure and contact information
- general knowledge of the environmental regulations (LDAR & BWON) and related procedures
- knowledge of regulatory inspection, documentation and repair requirements
- knowledge of fugitive emissions procedures
- knowledge of the Valve Preventative Maintenance Program
- knowledge of how to utilize the refinery system, such as SAP, to create work notifications and approvals and electronic inspections

The requirements of this training will be incorporated into Limetree Bay's job specific training. All training will be reviewed and updated on a reoccurring basis (at least once every three (3) years). The certification testing will be utilized to assess the effectiveness of the training products.

**APPENDIX F**  
**Method 21 Monitoring Locations for API Separators 1, 2 and 3**

<b>API #1, 2, &amp; 3</b>	
<b>Emission Points</b>	<b>Total</b>
Access Hatch	48
Gauge Hatch	45
Fixed roof plates	150
Piping Penetration	52
Steel plate	31
Pump base	22
Hose connection	2
Conduit port	10
Valve stem port	16
<b>Total</b>	<b>376</b>

**APPENDIX G**  
**[RESERVED]**



**APPENDIX H**  
**Additional Coker Project Injunctive Relief**

Emissions Unit	Pollutant	Limit	Units	Averaging Time	Monitoring <sup>a</sup>	Reporting	Compliance Schedule
<b>Coker Heater (two units)</b>	<b>CO</b>	0.030	lb/mmBTU	Average of 3 1-hr samples	Annual Performance Test (EPA RM-10)	Within 60 Days of test	Date of Entry
	<b>VOC</b>	0.0050	lb/mmBTU	N/A	EPA RM-25 or RM-25A following any CO test exceedance	Within 60 Days of test	Date of Entry
<b>Boiler 10</b>	<b>CO</b>	0.070	lb/mmBTU	Average of 3 1-hr samples	Annual Performance Test (EPA RM-10)	Within 60 Days of test	Date of Entry
	<b>VOC</b>	0.0050	lb/mmBTU	N/A	EPA RM-25 or RM-25A following any CO test exceedance	Within 60 Days of test	Date of Entry
<b>SRUs 1&amp;2/ Beavon 1</b>	<b>RSC (Final)</b>	162	ppmvd	Hourly rolling 12-hr average	NSPS RSC CEMS (40 C.F.R. 60 App A, B, & F)	NSPS quarterly reports	1/1/2014
		66	ppmvd	Daily rolling 30-day average	NSPS RSC CEMS (40 C.F.R. 60 App A, B, & F)	NSPS quarterly reports	1/1/2014
<b>Tanks</b> No. 6 Sour Water Stripper Tank (TK-1071), Desalter Effluent Water (DEW) Tank (TK-1663)	<b>VOC</b>	Ext. Floating Roof Tank		N/A	Subpart Kb monitoring (40 C.F.R. §60.113b(b)) for Ext. Floating Roof Kb requirements: Seal gap measurements (Secondary once/yr, Primary once/5 yrs). Inspect seals and fittings each time the vessel is emptied and degassed.	NSPS reports	Tank 1071: 12/31/2011  Tank 1663: Date of Entry
Coker Charge Tank (TK-8501)	<b>VOC</b>	Fixed Roof Tank		N/A	Subpart Kb monitoring (40 C.F.R. §60.110b-117b) Record and maintain records documenting the material stored in the hot pitch storage tank (TK-8501), showing that the tank remains exempt from the requirements in 40 C.F.R. Part 60 Subpart Kb, §60.110b(b).	NSPS reports	Date of Entry

**APPENDIX H**  
**Additional Coker Project Injunctive Relief**

<b>Emissions Unit</b>	<b>Pollutant</b>	<b>Limit</b>	<b>Units</b>	<b>Averaging Time</b>	<b>Monitoring<sup>a</sup></b>	<b>Reporting</b>	<b>Compliance Schedule</b>
<b>Process equipment located in</b> Coker Unit, Coker Gas Plant, No. 7 Amine, No. 5 Crude, No. 3 Vacuum, No. 3 Crude, No. 1 Vacuum, No. 1 Visbreaker, and No. 2, 4, 6, & 7 Distillate Desulfurizer Units and outside battery limit modifications to the terminal, tank farm & blending equipment	<b>VOC</b>	40 C.F.R. Part 60 Subpart GGGa			Comply with 40 C.F.R. Part 60 Subpart GGGa		Date of Entry

<sup>a</sup> For purposes of demonstrating compliance with limits which require an annual performance test, the first performance test shall be conducted no later than twelve (12) months after the Date of Entry of the First Modification or twelve (12) months from Restart for Idled Units, whichever is earlier.

**APPENDIX H**  
**Additional Coker Project Injunctive Relief**

<b>Emissions Unit</b>	<b>Pollutant</b>	<b>Design/Work Practice Controls</b>	<b>Monitoring</b>	<b>Compliance Schedule</b>
<b>Coke Handling, Storage and Loading Facility</b>				
Coke Cutting/Coke Pit	<b>PM (all species)</b>	High Pressure water cutting of coke & enclosed drop zones/coke pit (No roof)	Maintain records documenting design	Date of Entry
Coke Crusher	<b>PM (all species)</b>	Enclosed <sup>b</sup> crusher structure. Moisture content control from initial cutting.	Maintain records documenting design	Date of Entry
Coke Transfer to Storage	<b>PM (all species)</b>	Enclosed <sup>b</sup> conveyor to storage, Moisture content control from initial cutting.	Maintain records documenting design	Date of Entry
Coke Storage	<b>PM (all species)</b>	Enclosed <sup>b</sup> storage buildings, baghouse for vent control, and moisture content control from initial cutting.	Maintain records documenting design	Date of Entry
Coke Loading	<b>PM (all species)</b>	Enclosed <sup>b</sup> conveyor to loading dock. "Spout" containment loading to minimize drop emissions when loading ship.	Maintain records documenting design	Date of Entry

<sup>b</sup> Enclosed structures can have ventilation vents or access ways.

**APPENDIX J****IN SERVICE UNITS AND LDAR AND BWON EQUIPMENT  
IN REGULATED SERVICE**

List, as of June 1, 2019, of all emissions units that are In Service Units:

Unit	Source Code	Location
GT-4	G-3404	East
GT-7	G-3407	East
GT-8	G-3408	East
Flare No. 7	H-3301	East

List, as of June 1, 2019, of LDAR and BWON Equipment to which the LDAR and BWON provisions of the Consent Decree continue to apply (i.e. are In Regulated Service):

Location of LDAR Equipment In Regulated Service

1. Offsite area piping between and into active tanks
2. Piping between docks 1 through 10 and tanks
3. Piping from tanks to truck loading rack
4. Propane and Butane storage area
5. Piping between Propane and Butane storage area and East Power House area
6. East Power House area
7. Piping from East Power House to the No. 7 Flare

Location of BWON Equipment In Regulated Service

1. #1 and #3 APIs and #3 WEMCO
2. Portions of Advanced Wastewater Treatment Plant
3. Wastewater collection equipment and oily water sewer system identified as: all oily water sewer cups, process area drains, junction boxes, and wastewater piping servicing tanks, manifolds, and process units that are not Idled Units or not in emissions units permanently Shutdown listed on Appendix N
4. Ballast and slop tanks

**APPENDIX K**  
**LIST OF IDLED UNITS**

List, as of June 1, 2019, of all emissions units that are Idled Units:

**IDLED WEST SIDE EMISSIONS UNITS**

Emissions Unit	Emissions Unit Type	Process Unit Location
H-101	Heater	1 Vis.
H-104	Heater	1 Vis.
H-160	Heater	Utl. Fract.
H-200	Heater	Penex (Par Isom)
H-201	Heater	Penex
H-202	Heater	Penex
C-200A	Compressor Engine	Penex
C-200B	Compressor Engine	Penex
C-200C	Compressor Engine	Penex
H-601	Heater	#2 Plat
H-604	Heater	#2 Plat
H-605	Heater	#2 Plat
H-800A	Heater	2 DD
H-800B	Heater	2 DD
H-801	Heater	2 DD
C-1500A	Compressor Engine	3 DD
C-1500B	Compressor Engine	3 DD
C-1500C	Compressor Engine	3 DD
H-2201A	Heater	4 DD
H-2201B	Heater	4 DD
H-2202	Heater	4 DD
H-2400	Heater	5 DD
C-2400A	Compressor Engine	5 DD
C-2400B	Compressor Engine	5 DD
H-1061	Heater	1 Beavon
B-1155	Boiler	#5 F. Boiler
H-1105	Flare	Flare 2
H-1104	Flare	Flare 3
H-1032	Incinerator	SRU 1
H-1042	Incinerator	SRU 2
	West Sulfur Pit	SRU 1 & 2

**IDLED EAST SIDE EMISSIONS UNITS**

Emissions Unit	Emissions Unit Type	Process Unit Location
H-3101A	Heater	5 CDU
H-3101B	Heater	5 CDU
H-4101A	Heater	6 CDU
H-4101B	Heater	6 CDU
H-4201	Heater	3 Vac.
H-4202	Heater	3 Vac.
H-4301A	Heater	7 DD
H-4301B	Heater	7 DD
H-4302	Heater	7 DD
H-4401	Heater	3 Plat.
H-4402	Heater	3 Plat.
H-4451	Heater	3 Plat.
H-4452	Heater	3 Plat.
H-4453	Heater	3 Plat.
H-4454	Heater	3 Plat.
H-4455	Heater	3 Plat.
H-4502	Heater	2 Sulf.
H-4503	Heater	2 Sulf.
H-4504	Heater	2 Sulf.
H-4505	Heater	2 Sulf.
H-4601A	Heater	6 DD
H-4601B	Heater	6 DD
H-4602	Heater	6 DD
C-4601A	Compressor Engine	6 DD
C-4601B	Compressor Engine	6 DD
C-4601C	Compressor Engine	6 DD
H-4901	Heater	LSG
H-5301A	Heater	9 DD
H-5301B	Heater	9 DD
H-5302	Heater	9 DD
H-5401	Heater	4 Plat.
H-5402	Heater	4 Plat.
H-5451	Heater	4 Plat.
H-5452	Heater	4 Plat.
H-5453	Heater	4 Plat.

H-5454	Heater	4 Plat.
H-5455	Heater	4 Plat.
H-8501A	Heater	Coker
H-8501B	Heater	Coker
	Coke Handling, Storage and Loading Facility	Coker
STK-7801	Common Stack for Heaters H-7801, H- 7802 and R-7801	Sulfuric Acid Plant
B-3302	Boiler	#7 F. Boiler
B-3303	Boiler	#8 F. Boiler
B-3304	Boiler	#9 F. Boiler
B-3701	Boiler	#10 F. Boiler
G-3409	Generating Turbine	GT-9
G-3410	Generating Turbine	GT-10
G-3413	Generating Turbine	GT-13
H-3413	Fired Heat Recovery Steam Generator	GT-13
H-3351	Flare	Flare 5
H-3352	Flare	Flare 6
STK-7921	Flare	LPG Flare
STK -7941	Flare	FCC LP Flare
STK -7942	Flare	Ground Flare
H-4745	Incinerator	SRUs 3 and 4
	Sulfur Pits	SRUs 3 and 4
STK-7051	Catalyst Regenerator	FCC

**APPENDIX L**  
**EXCEPTIONS FOR COMPLIANCE ON RESTART**

Unit	CD Paragraph	CD Requirement	Restart Compliance Exception
FCCU	11	NO <sub>x</sub> 365-Day rolling average limit	During the first 30 Days after the Restart of the FCCU, the unit shall comply with an interim limit of 80 ppmvd on a 7-Day rolling average basis instead of the 20 ppmvd limit established by Paragraph 11.
	12 14 21	RAA or RATA for: NO <sub>x</sub> CEMS SO <sub>x</sub> CEMS CO CEMS	Required CEMS RAA or RATA shall be conducted within 60 Days after achieving the maximum production rate at which the FCCU will be operated, or not later than 180 Days after initial Restart, whichever comes first.
	16	PM stack test	Required PM stack test shall be conducted within 60 Days after achieving the maximum production rate at which the FCCU will be operated, or not later than 180 Days after initial Restart, whichever comes first.
	18	CO limit	During the first 7 Days after the Restart of the FCCU, the unit shall comply with an interim limit of 1,000 ppmvd on a 7-Day rolling average basis instead of the 500 ppmvd limit established by Paragraph 18.
Units listed on Appendix C	34 35	NSPS monitoring, but only as to Part 60, Appendix F, Section 5 “Data Accuracy Assessment” requirements, and Part 60, Appendix B	Demonstration of compliance shall be achieved within 60 Days after achieving the maximum production rate at which the affected facilities will be operated, or not later than 180 Days after initial Restart, whichever comes first.



Unit	CD Paragraph	CD Requirement	Restart Compliance Exception
East Side Sulfur Recovery Plant	45a	NSPS monitoring, but only as to Part 60, Appendix F, Section 5 “Data Accuracy Assessment” requirements, and Part 60, Appendix B	Demonstration of compliance shall be achieved within 60 Days after achieving the maximum production rate at which the affected facilities will be operated, or not later than 180 Days after initial Restart, whichever comes first.
LPG and FCCU High Pressure Flares	49	NSPS Ja monitoring, if required	Demonstration of compliance shall be achieved not later than 90 Days after Flaring Device Restart and compliance certifications, required by Paragraph 52, shall be submitted within 30 Days thereafter.
LPG Flare FCCU High Pressure Flare FCCU Low Pressure Flare Flares 2, 3, 5, 6, and 7	49, 52	NSPS Ja monitoring for flares	Demonstration of compliance shall be achieved not later than 90 Days after Flaring Device Restart and compliance certifications, required by Paragraph 52, shall be submitted within 30 Days thereafter.
Coker Heaters, Boiler 10	133	Appendix H, Performance test (CO and VOC)	Demonstration of compliance shall be achieved within 60 Days after achieving the maximum production rate at which the affected facilities will be operated, or not later than 180 Days after initial Restart, whichever comes first.
Boilers 5, 8, 9	135	NSPS D, Performance test and CEMS, as applicable	Demonstration of compliance shall be achieved within 60 Days after achieving the maximum production rate at which the affected facilities will be operated, or not later than 180 Days after initial Restart, whichever comes first.

Unit	CD Paragraph	CD Requirement	Restart Compliance Exception
Generating Turbine 9	136	NSPS GG, CEMS and Performance test	Demonstration of compliance shall be achieved within 60 Days after achieving the maximum production rate at which the affected facilities will be operated, or not later than 180 Days after initial Restart, whichever comes first.
BWON or LDAR Equipment placed back In Regulated Service	BWON, Section V.J. LDAR, Section V.K.	Monitoring Requirements	Required monitoring shall be conducted no later than 60 Days after the BWON or LDAR Equipment is placed back In Regulated Service.

## **APPENDIX M**

### **PROCESS AND FACTORS FOR “COMMERCIAL UNAVAILABILITY” OF LOW-E VALVE OR PACKING**

Summary: This Appendix outlines a process to be followed and factors to be taken into consideration to establish that a Low-E Valve or Low-E Packing is not “commercially available” pursuant to Subparagraph 112.c of the Consent Decree. Factors other than those identified in Paragraph 1 of this Appendix may also be utilized to establish that a Low-E Valve or Low-E Packing is not commercially available and procedures other than those identified in Paragraphs 2–3 may be used if mutually agreed upon by the Parties in writing.

1. Factors. The following factors shall be taken in to account for determining the availability of safe and suitable Low-E Valve or Low-E Packing Technologies:

- (1) Valve type;
- (2) Valve service and operating conditions;
- (3) Type of refinery process equipment in which the valve is used;
- (4) Seal performance;
- (5) Service life;
- (6) Packing friction;
- (7) Temperature and pressure limitations; and
- (8) Retrofit applications (*e.g.*, re-piping or space limitations).

The following factors may also be relevant for consideration, depending on the process unit or equipment in use at the Refinery:

- (9) Valve or valve packing specifications identified by the licensor of the process unit or equipment in use at the Refinery (including components that are part of a design package by a specialty-equipment provider as part of a larger process unit); or
- (10) Valve or valve packing vendor or manufacturer recommendations for the relevant Refinery unit and/or process unit components.

2. Process. The following procedure shall be followed for determining the availability of a Low-E Valve or Low-E Packing:

- a. Limetree Bay must contact a reasonable number of vendors of valves and valve packing technologies, taking into account the relevant factors identified above, prior to asserting a claim that Low-E Valve or Low-E Packing is not commercially available.
  - (i) For purposes of this Consent Decree, a reasonable number of vendors shall mean at least three vendors of valves or three vendors of valve packing technologies.

(ii) If fewer than three vendors of valve or valve packing technologies are contacted, the determination of whether such fewer number is reasonable for purposes of this Consent Decree shall be based on Factors (9) and/or (10) above, or on a demonstration that fewer than three vendors offer valves or valve packing technologies for the service and operating conditions of the valve to be replaced, in consideration of Factors (1) through (8) above, as applicable.

b. Limetree Bay shall obtain a written representation from each vendor contacted or equivalent documentation that the valve or valve packing does not meet the specifications for a Low-E Valve or Low-E Packing.

c. Limetree Bay shall prepare a written report fully explaining the basis for each claim that a valve or valve packing is not commercially available, to include all relevant documentation and other information supporting the claim. Such report shall also identify the commercially-available valve or packing technology that comes closest to meeting the requirements for a Low-E Valve or Low-E Packing that is selected and installed by Limetree Bay pursuant to Subparagraph 112.c of the Consent Decree. Such report shall be included in the Semi-Annual Report required by Part X of the Consent Decree, for the period in which the valve or valve packing is replaced.

3. EPA Review of Claim of Commercial Unavailability. Upon discretionary review by EPA of any claim of commercial unavailability, if EPA disagrees that a valve or valve-packing technology is commercially unavailable, EPA shall notify Limetree Bay in writing, specifying the valve or valve packing EPA believes to be commercially available and the basis for its availability for the service and operating conditions of the valve. Following receipt by Limetree Bay of EPA's notice, the following shall apply:

a. Limetree Bay is not required to retrofit the valve or valve packing for which the unavailability claim was asserted (unless otherwise required to do so pursuant to some other provision of this Consent Decree).

b. EPA's notification shall serve as notice to Limetree Bay of EPA's intent that a future claim of commercial unavailability will not be accepted for (a) the valve or valve packing that was the subject of the unavailability claim, or (b) for a valve or valve packing in the same or similar service, taking into account the factors identified in this Appendix. If Limetree Bay disagrees with EPA's notification, Limetree Bay and EPA may informally discuss the basis for the claim of commercial unavailability. EPA may thereafter revise its notification, if necessary.

c. If Limetree Bay makes a subsequent commercial unavailability claim for the same valve or valve packing (or valve or valve packing in the same or similar service) that was the subject of a prior unavailability claim which was not accepted by EPA, and such subsequent claim is also denied by EPA on the same basis as provided in EPA's prior notification, Limetree Bay shall retrofit the valve

or valve packing with the commercially available valve or valve packing technology at the next unit turnaround.

Any disputes concerning EPA's notification to Limetree Bay of the commercial availability of a valve or valve packing technology in a particular application pursuant to Subparagraph 3.c of this Appendix shall be addressed under the Dispute Resolution provisions in Part XVI of the Consent Decree.

## **APPENDIX N**

### **EMISSIONS UNITS PERMANENTLY SHUTDOWN AS OF JUNE 1, 2019**

- H-401A (2 CDU)
- H-401B (2 CDU)
- H-401C (2 CDU)
- H-600 (Heater in 2 Plat)
- H-602 (Heater in 2 Plat)
- H-603 (Heater in 2 Plat)
- H-606 (Heater in 2 Plat)
- H-1401A (Heater in 3 CDU)
- H-1401B (Heater in 1 Vac)
- H-1500 (Heater in 3DD)
- H-1501 (Heater in 3 DD)
- H-2101 (Heater in 2 Vac)
- H-2102 (Heater in 2 Vac)
- H-2185 (Heater in 2 Vis)
- H-2401 (Heater in 5DD)
- H-2501 (Naptha Frac.)
- B-1151 (#1 Boiler)
- B-1153 (#3 Boiler)
- B-1154 (#4 Boiler)
- B-3301 (#6 Boiler)
- C-800A, B and C (Compressors in 2DD)
- C-2201A, B and C (Compressors in 4DD)
- No. 1 Gas Turbine (G-1101E)
- No. 2 Gas Turbine (G-1101F)
- No. 3 Gas Turbine (G-1101G)
- No. 5 Gas Turbine (G-3405)

- No. 6 Gas Turbine (G-3406)

**Appendix O**  
**Requirements That Shall Survive**  
**Termination of the Consent Decree**

CD Paragraph	Requirements That Shall Survive Termination of the Consent Decree under Section XVII.
<b>¶ 10: Certain CD Definitions</b>	<p>“365-day rolling average” shall mean the average daily emission rate during the preceding 365 Operating Days. (CD 10.A.)</p> <p>“7-day rolling average” shall mean the average daily emission rate during the preceding seven (7) Operating Days. (CD 10.B.)</p> <p>“FCCU and Coker Drain Systems” means the individual drain systems (as defined in 40 C.F.R. § 60.691) and ancillary equipment which manage oily wastewater generated in the process units in the FCCU complex and the Coker. (CD ¶ 10.U.)</p> <p>“Operating Day” shall mean a Day on which a minimum of 18 hours of valid emissions data are obtained. (CD 10.HH.)</p> <p>“Sulfur Recovery Plant” or “SRP” shall mean a process unit that recovers sulfur from hydrogen sulfide by a vapor phase catalytic reaction of sulfur dioxide and hydrogen sulfide. (CD 10.UU)</p>
<b>¶ 11: FCCU NO<sub>x</sub> limits</b>	<p>Limit NO<sub>x</sub> emissions from the FCCU to 20 ppmvd or less on a 365 day rolling average and 40 ppmvd or less on a 7-day rolling average, each at 0% O<sub>2</sub>.</p> <p>NO<sub>x</sub> emissions during periods of Startup, Shutdown or Malfunction of the FCCU shall not be used in determining compliance with the 7-day rolling average NO<sub>x</sub> emission limit, provided that during such periods Limetree Bay implements good air pollution control practices to minimize NO<sub>x</sub> emissions.</p>
<b>¶ 12: Demonstrating compliance with FCCU NO<sub>x</sub> limits (NO<sub>x</sub> and O<sub>2</sub> CEMS)</b>	<p>Certify, calibrate, maintain, and operate NO<sub>x</sub> and O<sub>2</sub> CEMS on the FCCU in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B.</p> <p>With respect to 40 C.F.R. Part 60, Appendix F, in lieu of the requirements of 40 C.F.R. Part 60, Appendix F §§ 5.1.1, 5.1.3 and 5.1.4, conduct either a Relative Accuracy Audit (“RAA”) or a Relative Accuracy Test Audit (“RATA”) on each CEMS at least once every three (3) years. Conduct</p>



CD Paragraph	Requirements That Shall Survive Termination of the Consent Decree under Section XVII.
	Cylinder Gas Audits (“CGA”) each calendar quarter during which a RAA or a RATA is not performed.
<b>¶ 13 and 14: FCCU SO<sub>2</sub> limits</b>	<p>Limit SO<sub>2</sub> emissions from the FCCU to 16 ppmvd or less on a 365-day rolling average and 25 ppmvd or less on a 7-day rolling average, each at 0% O<sub>2</sub>.</p> <p>SO<sub>2</sub> emissions during periods of Malfunction of the Wet Gas Scrubber (“WGS”) shall not be used in determining compliance with the 7-day rolling average SO<sub>2</sub> emission limit, provided that during such periods good air pollution control practices are implemented to minimize SO<sub>2</sub> emissions.</p>
<b>¶ 14: Demonstrating compliance with FCCU SO<sub>2</sub> limits (SO<sub>2</sub> and O<sub>2</sub> CEMS)</b>	<p>Certify, calibrate, maintain, and operate SO<sub>2</sub> and O<sub>2</sub> CEMS on the FCCU in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B.</p> <p>With respect to 40 C.F.R. Part 60, Appendix F, in lieu of the requirements of 40 C.F.R. Part 60, Appendix F §§ 5.1.1, 5.1.3 and 5.1.4, conduct either a Relative Accuracy Audit (“RAA”) or a Relative Accuracy Test Audit (“RATA”) on each CEMS at least once every three (3) years. Conduct Cylinder Gas Audits (“CGA”) each calendar quarter during which a RAA or a RATA is not performed.</p>
<b>¶ 15 and 17: FCCU PM limit</b>	<p>Limit PM emissions from the FCCU to 0.5 pounds PM or less per 1,000 pounds of coke burned based on the average of three (3) 1-hour stack tests.</p> <p>PM emissions during periods of Malfunction of the FCCU's WGS shall not be used in determining compliance with the emission limit of 0.5 pounds of PM per 1,000 pounds of coke burned, provided that during such periods good air pollution control practices are implemented to minimize PM emissions.</p>
<b>¶ 16: PM Testing for FCCU (stack testing methodology and frequency requirements)</b>	Follow the stack test methodology specified in 40 C.F.R. § 60.106(b)(2) to measure PM emissions from the FCCU.

CD Paragraph	Requirements That Shall Survive Termination of the Consent Decree under Section XVII.
<p><b>¶¶ 18, 19, 20:</b>  <b>FCCU CO</b>  <b>limits</b></p>	<p>Limit CO emissions from the FCCU to 500 ppmvd or less on a 1-hour block average basis corrected to 0% O<sub>2</sub>.</p> <p>If prior to termination of this Consent Decree, Limetree Bay has accepted for the FCCU a CO emissions limit of 100 ppmvd or less on a 365-day rolling average corrected to 0% O<sub>2</sub>, then the FCCU shall also comply with that limit.</p> <p>CO emissions during periods of Startup, Shutdown, or Malfunction of the FCCU shall not be used in determining compliance with the 1-hour 500 ppmvd emissions limit, provided that during such periods good air pollution control practices are implemented to minimize CO emissions.</p>
<p><b>¶ 21:</b>  <b>Demonstrating</b>  <b>compliance with</b>  <b>FCCU CO</b>  <b>limits (CEMS</b>  <b>operating</b>  <b>requirements)</b></p>	<p>Certify, calibrate, maintain, and operate the CO CEMS on the FCCU in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMs (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B.</p> <p>With respect to 40 C.F.R. Part 60, Appendix F, in lieu of the requirements of 40 C.F.R. Part 60, Appendix F §§ 5.1.1, 5.1.3 and 5.1.4, conduct either a RAA or a RATA on each CEMS at least once every three (3) years. Conduct Cylinder Gas Audits (“CGA”) each calendar quarter during which a RAA or a RATA is not performed.</p>
<p><b>¶ 22: FCCU</b>  <b>Subpart J</b>  <b>affected facility</b>  <b>status and</b>  <b>opacity AMP</b></p>	<p>FCCU Catalyst Regenerator is an “affected facility,” as that term is used in 40 C.F.R. Part 60, Subparts A and J, and is subject to and shall comply with, the requirements of 40 C.F.R. Part 60, Subparts A and J, for SO<sub>2</sub>, PM (and opacity) and CO.</p> <p>If prior to termination of this Consent Decree, the FCCU becomes subject to NSPS Subpart Ja for a particular pollutant due to a “modification” (as that term is defined in NSPS Subpart Ja), the FCCU shall be subject to and comply with NSPS Subpart Ja in lieu of NSPS Subpart J for that regulated pollutant to which a standard applies as a result of the modification.</p> <p>If prior to termination of this Consent Decree, the FCCU becomes subject to NSPS Subpart Ja due to a “reconstruction” (as that term is defined in NSPS Subpart Ja), the FCCU shall be subject to and comply with NSPS Subpart Ja for all pollutants in lieu of Subpart J.</p>

<p><b>¶¶ 26-28, 30, 31: NO<sub>x</sub> Emission Reductions from Heaters, Boilers, Generating Turbines and Compressor Engines and Monitoring</b></p>	<p>The units listed below have been permanently shutdown and permits relinquished in order to demonstrate a refinery-wide reduction of 4,744 tpy of NO<sub>x</sub>. If any of the units listed below are restarted, they shall be treated as new emissions units.</p> <ul style="list-style-type: none"> <li>• H-401A (2 CDU)</li> <li>• H-401B (2 CDU)</li> <li>• H-401C (2 CDU)</li> <li>• H-600 (Heater in 2 Plat)</li> <li>• H-602 (Heater in 2 Plat)</li> <li>• H-603 (Heater in 2 Plat)</li> <li>• H-606 (Heater in 2 Plat)</li> <li>• H-1401A (Heater in 3 CDU)</li> <li>• H-1401B (Heater in 1 Vac)</li> <li>• H-1500 (Heater in 3DD)</li> <li>• H-1501 (Heater in 3 DD)</li> <li>• H-2101 (Heater in 2 Vac)</li> <li>• H-2102 (Heater in 2 Vac)</li> <li>• H-2185 (Heater in 2 Vis)</li> <li>• H-2401 (Heater in 5DD)</li> <li>• H-2501 (Naphtha Frac.)</li> <li>• B-1151 (#1 Boiler)</li> <li>• B-1153 (#3 Boiler)</li> <li>• B-1154 (#4 Boiler)</li> <li>• B-3301 (#6 Boiler)</li> <li>• C-800A, B and C (Compressors in 2DD)</li> <li>• C-2201A, B and C (Compressors in 4DD)</li> </ul>
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CD Paragraph	Requirements That Shall Survive Termination of the Consent Decree under Section XVII.
	<ul style="list-style-type: none"> <li>• No. 1 Gas Turbine (G-1101E)</li> <li>• No. 2 Gas Turbine (G-1101F)</li> <li>• No. 3 Gas Turbine (G-1101G)</li> <li>• No. 5 Gas Turbine (G-3405)</li> <li>• No. 6 Gas Turbine (G-3406)</li> </ul>
<p><b>¶ 34: NSPS Subparts A, J, and Ja applicability for Heaters, Boilers and Generating Turbines (FGCD)</b></p>	<p>All heaters, boilers, and all other fuel gas combustion devices (other than Flaring Devices) are affected facilities, as that term is used in 40 C.F.R. Part 60, Subparts A and J or Ja for SO<sub>2</sub> emissions, and are subject to and shall comply with the applicable requirements of NSPS Subparts A and J or Ja for SO<sub>2</sub> emissions for fuel gas combustion devices. The FGCD listed on pages C-2 and C-3 of Appendix C are subject to NSPS Subpart Ja and the FGCD listed on pages C-1, C-4 and C-5 of Appendix C are subject to NSPS Subpart J.</p> <p>If prior to the termination of this Consent Decree, any heater boiler or other fuel gas combustion device (other than a Flaring Device) becomes subject to NSPS Subpart Ja for a particular pollutant due to a “modification” (as defined in NSPS Subpart Ja), the affected facility shall be subject to and comply with NSPS Subpart Ja in lieu of NSPS Subpart J for that regulated pollutant to which a standard applies as a result of the modification.</p> <p>If prior to the termination of this Consent Decree, any heater, boiler, or other fuel gas combustion device (other than a Flaring Device) becomes subject to NSPS Subpart Ja due to a “reconstruction” (as defined in NSPS Subpart Ja), the affected facility shall be subject to and comply with NSPS Subpart Ja for all pollutants in lieu of Subpart J.</p>
<p><b>¶ 35: Monitoring for Subpart J compliance for FGCD</b></p>	<p>Certify, calibrate, maintain and operate all CEMS required by this Paragraph in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to continuous opacity monitoring systems) and Part 60, Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60, Appendix B.</p>
<p><b>¶¶ 37-40: Fuel oil sulfur limits</b></p>	<p>1. Do not burn Fuel Oil greater than 0.55 wt% sulfur at any time or 0.50 wt% on a 365-day rolling average basis in any heater, boiler, or Generating Turbine.</p>



CD Paragraph	Requirements That Shall Survive Termination of the Consent Decree under Section XVII.
	<p>2. Switch the fuel supply for any units combusting Fuel Oil to a Fuel Oil with not greater than 0.3 wt% sulfur within one hour of when one of the following conditions occur:</p> <p>a. The hourly average winds blow from a 180° sector, defined as 90° to 270°, inclusive, where zero degrees is due North, for at least six (6) consecutive hours during a 24-hour block period, or any 12 non-consecutive hours during a 24-hour block period. Wind direction will be monitored by a meteorological tower located on Limetree Bay property, and will be collected and reported as 1-hour averages, starting on the hour. If the average wind direction for a given hour is from within the 180° sector, the wind will be deemed to have flowed from within the designated sector for that hour. A 24-hour block period is defined as beginning at midnight and ending on the following midnight.</p> <p>b. Limetree Bay's meteorological station is inoperable for six consecutive hours.</p> <p>3. Limetree Bay may switch back to the higher sulfur content Fuel Oil (a Fuel Oil with a sulfur content of less than or equal to 0.55 wt%) in accordance with the following conditions:</p> <p>a. The winds blow outside of the 180° sector, defined as 90° to 270°, for at least three (3) consecutive hours, following the period which the winds were blowing inside the 180° sector; or</p> <p>b. When the meteorological station becomes operable, and three (3) consecutive hours of wind conditions outside the 90° to 270° sector have occurred.</p> <p>4. On a daily basis, monitor the sulfur content of all Fuel Oil burned [pursuant to Paragraph 3, above] in accordance with ASTM D2622, D4294, or D5453, as follows:</p> <p>a. Fuel Oil Supplied from Single Storage Tank:</p> <p>i. If the Fuel Oil burned is supplied from a single storage tank for an entire day or part thereof, then test the contents of the storage tank once per day by a sample taken at three (3) levels in the storage tank (i.e., the bottom, middle, and top) which is then composited (Composite Sample).</p> <p>ii. If the same storage tank is used for more than one day and no Fuel Oil is added to the storage tank, then Limetree Bay may use the storage tank sample result from the previous day to demonstrate the sulfur content of the storage tank.</p>

CD Paragraph	Requirements That Shall Survive Termination of the Consent Decree under Section XVII.
	<p>b. Fuel Oil Supplied from Multiple Storage Tanks: If the Fuel Oil burned for one or more consecutive days is supplied from more than one storage tank, then Limetree Bay shall sample each storage tank separately once per day by a Composite Sample taken at three (3) levels in the storage tank (i.e., the bottom, middle, and top).</p> <p>c. In the event that Fuel Oil is added to any storage tank, Limetree Bay shall sample the storage tank by a Composite Sample taken at three (3) levels in the storage tank (i.e., the bottom, middle, and top) before the storage tank is placed into service.</p> <p>5. Record the quantity and sulfur content of all Fuel Oil burned pursuant to [Paragraph 3 above].</p>
¶ 42: NSPS Subparts A and Ja for East and West Sulfur Plants	<p>The East Side SRP is an “affected facility” as that term is used in 40 C.F.R. Part 60, Subparts A and Ja and is subject to the requirements of Subparts Ja. The West Side SRP is an “affected facility” as that term is used in 40 C.F.R. Subparts A and Ja and is subject to Subpart Ja.</p>
¶ 43: Sulfur pit re-route and monitoring	<p>Route or re-route all sulfur pit emissions so that they are eliminated or controlled, and included and monitored as part of the SRPs’ emissions subject to the NSPS Subpart Ja limit for SO<sub>2</sub> or reduced sulfur compounds, 40 C.F.R. § 60.102a(f).</p>
¶ 44: NSPS for SRPs	<p>The West Side SRP shall comply with the NSPS Subpart Ja and shall comply with 40 CFR § 60.102a(f) at all times except during periods of Startup, Shutdown, or Malfunction of the West Side SRP or during a Malfunction of the TGU. For purposes of determining compliance with the emission limits of 40 C.F.R. § 60.102a(f), the “start-up/shutdown” provisions set forth in NSPS Subpart A shall apply.</p> <p>At all times, including during periods of Startup, Shutdown, and Malfunction, and to the extent practicable, operate and maintain the West Side SRP and TGU and any supplemental control devices, in accordance with good air pollution control practices as required in 40 C.F.R. § 60.11(d).</p> <p>Monitor all non-fugitive emission points (stacks) to the atmosphere from the West Side SRP for Tail Gas emissions and shall monitor and report excess emissions, as required by 40 C.F.R. §§ 60.7(c), 60.13, and 60.106a. Conduct emission monitoring with CEMS as all such emission points. The requirement for continuous monitoring is not applicable to the Acid Gas</p>

CD Paragraph	Requirements That Shall Survive Termination of the Consent Decree under Section XVII.
	Flaring Device(s) used to flare Acid Gas and/or Sour Water Stripper Gas diverted from the SRPs.
¶ 45 (NSPS for SRPs)	Emissions of sulfur compounds from the East Side SRP shall be controlled to comply with NSPS Subparts A and Ja. Do not vent tail gas from the East Side SRP to an incinerator unless such venting complies with NSPS Subparts A and Ja.
¶ 49, 51, 53, and 54: Flares Subpart Ja applicability only	<p>The #2 Flare (H-1105), #3 Flare (H-1104), #5 Flare (H-3351), #6 Flare (H-3352), #7 Flare (H-3301), FCC HP Flare, FCC LP Flare, and LPG Flare are affected facilities under NSPS Subpart Ja and shall comply with NSPS Subpart Ja, provided that the Flaring Device is combusting fuel gas as defined in 40 C.F.R. § 60.101a.</p> <p>At all times and to the extent practicable, including during periods of Startup, Shutdown, and/or Malfunction, implement good air pollution control practices for minimizing emissions from the Flaring Devices identified in Appendix D consistent with 40 C.F.R. § 60.11(d).</p> <p>For continuous or intermittent, routinely-generated refinery fuel gases that are combusted in any Flaring Device identified in Appendix D, comply with 40 C.F.R. § 60.103a(h).</p> <p>The combustion of gases generated as a result of Startup, Shutdown, and/or Malfunction of a refinery process unit or released to a Flaring Device as a result of a process upset or relief valve leakage or other emergency malfunction is exempt from the requirement to comply with 40 C.F.R. § 60.103a(h).</p>
¶ 99 NSPS QQQ	FCCU and Coker Drain Systems are affected facilities under Subparts A and QQQ.
¶¶ 128-131, limitations on use of CD required emissions reductions	<p>1. Limetree Bay shall not generate or use any NO<sub>x</sub>, SO<sub>2</sub>, PM, PM-10, PM-2.5, VOC, or CO emissions reductions, or apply for and obtain any emission reduction credit, that result from any projects conducted or controls utilized pursuant to the Consent Decree (Civ. No. 1:11-cv-0006) ("CD Emissions Reductions") as netting reductions or emissions offsets in a PSD, major non-attainment, and/or synthetic minor New Source Review permit or permit proceeding.</p> <p>2. Notwithstanding the general prohibition set forth in Paragraph 1, Limetree Bay may use 41 tons per year of NO<sub>x</sub>, 61 tons per year of CO, and 14 tons per year of PM from CD Emissions Reductions as credits or offsets</p>



CD Paragraph	Requirements That Shall Survive Termination of the Consent Decree under Section XVII.
	<p>in any PSD, major non-attainment and/or minor NSR permit or permit proceeding, provided that the new or modified emissions units at which credits are being used: (1) is being constructed or modified for purposes of compliance with clean fuels requirements (72 Fed. Reg. 8428, amending 40 C.F.R. Part 80); and (2) has a federally enforceable, non-Title V permit that reflects the following requirements that are applicable to the pollutants for which credits are being used:</p> <ul style="list-style-type: none"> <li>a. For heaters and boilers, a limit of 0.027 lbs NO<sub>x</sub> per million BTU on a 3-hour rolling average basis;</li> <li>b. For heaters and boilers, a limit of 0.10 grains of hydrogen sulfide per dry standard cubic foot of fuel gas or 20 ppmvd SO<sub>2</sub> corrected to 0% O<sub>2</sub> both on a 3-hour rolling average;</li> <li>c. For heaters and boilers, no liquid or solid fuel firing authorization;</li> <li>d. For FCCUs, a limit of 20 ppmvd NO<sub>x</sub> or less on a 365-day rolling average basis corrected to 0% O<sub>2</sub>;</li> <li>e. For FCCUs, a limit of 25 ppmvd SO<sub>2</sub> or less on a 365-day rolling average basis corrected to 0% O<sub>2</sub>;</li> <li>f. For FCCUs, a limit of 0.5 pounds of PM per 1,000 pounds of coke burned on a 3-hour average basis; and</li> <li>g. For SRPs, NSPS Subpart J limits.</li> </ul> <p>3. Utilization of the exception set forth in Paragraph 2 to the general prohibition against the generation or utilization of CD Emissions Reductions set forth in Paragraph 1 is subject to the following conditions:</p> <ul style="list-style-type: none"> <li>a. Under no circumstances shall Limetree Bay use CD Emissions Reductions for netting and/or offsets prior to the time that actual CD Emissions Reductions have occurred;</li> <li>b. CD Emissions Reductions may be used only at the Limetree Bay Refinery;</li> <li>c. The CD Emissions Reductions provisions of this Consent Decree are for purposes of this Consent Decree only and neither Limetree Bay, nor any other entity may use CD Emissions Reductions for any purpose, including in any subsequent permitting or enforcement proceeding, except as provided herein.</li> </ul>



CD Paragraph	Requirements That Shall Survive Termination of the Consent Decree under Section XVII.
	<p>d. Limetree Bay shall remain subject to all federal, territorial, and local regulations applicable to the PSD, major non-attainment and/or minor NSR permitting process.</p> <p>4. Outside the Scope of the General Prohibition. Nothing in the Consent Decree (Civ. No. 1:11-cv-0006) is intended to prohibit Limetree Bay from seeking to:</p> <p>a. Use or generate netting reductions or emission offset credits from refinery units that are covered by the Consent Decree (Civ. No. 1:11-cv-0006) to represent the difference between the emissions limitations set forth in or established pursuant to the Consent Decree (Civ. No. 1:11-cv-0006) for such refinery units and the more stringent emissions limitations that Limetree Bay may elect to accept for those refinery units in a permitting process;</p> <p>b. Use or generate netting reductions or emission offset credits for refinery units that are not subject to an emission limitation pursuant to the Consent Decree (Civ. No. 1:11-cv-0006);</p> <p>c. Use emissions reductions from the installation of controls required by the Consent Decree (Civ. No. 1:11-cv-0006) in determining whether a project that (a) includes both the installation of controls under the Consent Decree (Civ. No. 1:11-cv-0006) and other construction and (b) is permitted as a single project triggers major New Source Review requirements;</p> <p>d. Use CD Emission Reductions for Limetree Bay's compliance with any rules or regulations designed to address regional haze or the non-attainment status of any area (excluding PSD and Non-Attainment New Source Review rules) that apply to Limetree Bay; provided, however, that Limetree Bay shall not be allowed to trade or sell any CD Emissions Reductions; or</p> <p>e. Use or generate netting reductions or emission offset credits for heaters, boilers, Generating Turbines and Compressor Engines on which Qualifying Controls, as defined in Paragraph 23 of the Consent Decree (Civ. No. 1:11-cv-0006), have been installed, provided that such reductions are not included in Limetree Bay's demonstration of compliance with the requirements of Paragraphs 24, 26, 27 and 28 of the Consent Decree (Civ. No. 1:11-cv-0006).</p>
¶ 132.b: Coker steam vent depressurization limit	Comply with a depressurization level of 2 psig for the Coker Steam Vents.

CD Paragraph	Requirements That Shall Survive Termination of the Consent Decree under Section XVII.				
¶ 133 and Appx H: Coker Heater (two units) CO and VOC limits	Pollutant	Limit	Units	Averaging Time	Monitoring
	CO	0.030	lb/mmBTU	Average of 3 1-hr samples	Annual Performance Test (EPA RM-10)
	VOC	0.0050	lb/mmBTU	N/A	EPA RM-25 or RM-25A following any CO test exceedance
¶ 133 and Appx H: Boiler 10 CO and VOC limits	Pollutant	Limit	Units	Averaging Time	Monitoring
	CO	0.070	lb/mmBTU	Average of 3 1-hr samples	Annual Performance Test (EPA RM-10)
	VOC	0.0050	lb/mmBTU	N/A	EPA RM-25 or RM-25A following any CO test exceedance
¶ 133 and Appx H: SRUs 1 & 2/Beavon 1, Reduced Sulfur Compound as defined in 40 CFR 60.101a, final limits	Pollutant	Limit	Units	Averaging Time	Monitoring
	RSC	162	ppmvd	Hourly rolling 12-hr average	NSPS RSC CEMS (40 C.F.R. 60 App A, B, & F)
		66	ppmvd	Daily rolling 30-day average	NSPS RSC CEMS (40 C.F.R. 60 App A, B, & F)
¶ 133 and Appx H: EFR Tank and Subpart Kb requirements  No. 6 Sour Water Stripper Tank (TK-1071), Desalter Effluent Water (DEW) Tank (TK-1663)	Pollutant	Limit	Monitoring		
	VOC	Ext. Floating Roof Tank	Subpart Kb monitoring (40 C.F.R. §60.113b(b)) for Ext. Floating Roof Kb requirements: Seal gap measurements (Secondary once/yr, Primary once/5 yrs). Inspect seals and fittings each time the vessel is emptied and degassed.		
¶ 133 and Appx H: Fixed Roof Tank and Subpart Kb requirements  Coker Charge [Pitch]Tank (TK-8501)	Pollutant	Limit	Monitoring		
	VOC	Fixed Roof Tank	Subpart Kb monitoring (40 C.F.R. §60.110b-117b) Record and maintain records documenting the material stored in the hot pitch storage tank (TK-8501), showing that the tank remains exempt from control requirements in accordance with 40 C.F.R. 60 Subpart Kb, §60.110b(b).		

CD Paragraph	Requirements That Shall Survive Termination of the Consent Decree under Section XVII.			
¶ 133 and Appx H: LDAR  Process equipment located in Coker Unit, Coker Gas Plant, No. 7 Amine, No. 5 Crude, No. 3 Vacuum, No. 3 Crude,  No. 1 Vacuum, No. 1 Visbreaker, and No. 2, 4, 6, & 7 Distillate Desulfurizer Units and outside battery limit modifications to the terminal, tank farm & blending equipment	Pollutant	Limit	Monitoring	
	VOC	40 C.F.R. Part 60, Subpart GGGa	Comply with 40 C.F.R. Part 60, Subpart GGGa	
¶ 133 and Appx H page H-3: equipment design and work practices for coke handling  Coke Handling, Storage and Loading Facility	Emissions Unit	Pollutant	Design/Work Practice Controls	Monitoring
	Coke Cutting/Coke Pit	PM (all species)	High Pressure water cutting of coke & enclosed drop zones/coke pit (No roof)	Maintain records documenting design
	Coke Crusher	PM (all species)	Enclosed <sup>b</sup> crusher structure. Moisture content control from initial cutting.	Maintain records documenting design
	Coke Transfer to Storage	PM (all species)	Enclosed <sup>b</sup> conveyor to storage, Moisture content control from initial cutting.	Maintain records documenting design
	Coke Storage	PM (all species)	Enclosed <sup>b</sup> storage buildings, baghouse for vent control, and moisture content control from initial cutting.	Maintain records documenting design
	Coke Loading	PM (all species)	Enclosed <sup>b</sup> conveyor to loading dock. "Spout" containment loading to minimize drop emissions when loading ship.	Maintain records documenting design

<sup>b</sup> Enclosed structures can have ventilation vents or access ways.

CD Paragraph	Requirements That Shall Survive Termination of the Consent Decree under Section XVII.
<b>¶ 135 Boilers 5, 8, and 9, NSPS Subparts A and D</b>	Boilers 5, 8, and 9 are “affected facilities” as that term is used in 40 C.F.R. Part 60, NSPS Subparts A and D and are subject to and required to comply with the requirements of NSPS Subparts A and D.
<b>¶ 136 [as modified]: Turbines 1-9, NSPS Subparts A and GG</b>	Generating Turbines 4,7, 8 and 9 are “affected facilities” as that term is used in, and shall comply with, 40 C.F.R. Part 60, Subparts A and GG, including any custom sulfur monitoring plan approved by EPA in accordance with 40 CFR 60.334(i)(3).

## **APPENDIX P**

### **Flaring Mitigation Projects**

The flaring mitigation projects include those listed below and any others submitted by Limetree Bay for advance approval by EPA and VIDPNR (“approved mitigation projects”). Pursuant to Paragraph 50A, Limetree Bay will achieve emission reductions sufficient to satisfy the Mitigation Amount, if any, by implementing one or more of the approved mitigation projects.

Limetree Bay will begin implementing one or more of the approved mitigation project(s) by no later than 180 days after submitting the notification required by Paragraph 50C.b.iii, and will mitigate a minimum of 10 tons per year until the Mitigation Amount is satisfied.

Progress on the implementation of the approved mitigation projects including, the start and end date(s) of an approved mitigation project, the approved mitigation project(s) being implemented, the number of tons reduced during the reporting period, the tons remaining to be mitigated, and the completion of the mitigation of the Mitigation Amount, will be included in the semi-annual reports submitted under Paragraph 143.

#### **A. Approved Mitigation Projects**

The following projects are approved:

1. **Reducing H<sub>2</sub>S in Refinery Fuel Gas:** If this project is selected for implementation, then Limetree Bay shall reduce the SO<sub>2</sub> emissions from fuel gas combustion devices (other than the Coker heaters, Boiler 10 and GT-13) by reducing H<sub>2</sub>S in fuel gas.

The emission reductions achieved pursuant to this project shall be calculated based on the difference between the average H<sub>2</sub>S concentration during the first six months after restart of Refinery Operations (“Baseline Period”), excluding periods of non-compliance, and the actual H<sub>2</sub>S concentration in the East Side refinery fuel gas system (using the H<sub>2</sub>S analyzers used to comply with NSPS Subpart J) after the Baseline Period. The tons of SO<sub>2</sub> reduction will be determined based on the change in H<sub>2</sub>S concentration, relative to the Baseline Period, and the total volume of fuel gas to fired sources on the East Side, each year after the Baseline Period.

2. **Boutique Amines to Reduce SO<sub>2</sub> from the TGTU**

If this project is selected for implementation, then Limetree Bay shall reduce SO<sub>2</sub> emissions by using specialized amines in its East Side tail gas treatment unit by reducing H<sub>2</sub>S and other sulfur compounds.

The emission reductions achieved pursuant to this project shall be calculated based on the difference between the monitored SO<sub>2</sub> concentration from the incinerator stack for the first six months of operations, excluding periods of noncompliance, after restart of Refinery Operations (“Baseline Period”) and each year after the Baseline Period.

**3. Boutique Amines to Reduce Other Sulfur Compounds in Fuel Gas:**

If this project is selected for implementation, Limetree Bay shall reduce SO<sub>2</sub> emissions from fuel gas combustion devices by decreasing the total sulfur concentration of fuel gas through the use of amines designed specifically to lower the concentration of sulfur compounds other than H<sub>2</sub>S.

The emission reductions achieved pursuant to this project shall be calculated based on the difference between the total sulfur concentration during the first six months after restart of Refinery Operations, excluding periods of non-compliance (“Baseline Period”), and the total sulfur concentration in the East Side refinery fuel gas system after the Baseline Period. The tons of SO<sub>2</sub> reduction will be determined based on the change in total sulfur concentration, relative to the Baseline Period, and the total volume of fuel gas to fired sources on the East Side, each year after the Baseline Period.

**B. Approval of Other Mitigation Projects**

1. Limetree Bay may propose other or additional projects for approval by EPA and VIDPNR. The written proposal shall contain a written description of the project(s), the emission reductions expected to be achieved, the anticipated start and end dates for the project(s), and any other relevant information describing the project(s). EPA and VIDPNR shall consult with each other and, if necessary, with Limetree Bay regarding the proposed project(s). Following such consultation and review, EPA and VIDPNR shall either approve the project(s) or provide written comments to Limetree Bay. If approved and selected for implementation, then Limetree Bay shall implement the project(s). If written comments are provided by EPA and VIDPNR, Limetree Bay shall either revise the written description of the project(s) to reflect the comments, withdraw the proposal, or submit an alternate proposal.

**C. Certification**

1. With regard to the approved mitigation projects, Limetree Bay shall include in the notification required by Paragraph 50C.b.iv. (or, if applicable, in the written proposal for other or additional project(s)), a certification of the truth and accuracy of each of the following:
  - a. That, as of the date of the 50C.b notification (or the proposal for additional or alternate project(s)), Limetree Bay is not required to perform or develop the mitigation project(s) by any federal, state, or local law or regulation and is not required to perform or develop the mitigation project(s) by agreement, grant, or as injunctive relief awarded in any other action in any forum;
  - b. That the mitigation project(s) are not projects that Limetree Bay was planning or intending to construct, perform, or implement other than in settlement of the potential violations resolved in the First Modification;
  - c. That Limetree Bay has not received and will not receive credit for the mitigation project(s) in any other enforcement action; and



- d. That Limetree Bay shall neither generate nor use any pollutant reductions from the mitigation project(s) as netting reductions, pollutant offsets, or to apply for, obtain, trade, or sell any pollutant reduction credits.

## **APPENDIX Q**





Director  
Air Enforcement Division  
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Virgin Islands Department of Planning and  
Natural Resources  
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Re: *United States of America and The United States Virgin Islands v. HOVENSA, L.L.C.*  
Civil Action No. 1:11-cv-0006

To Whom It May Concern:

As you are aware, I was appointed as the independent member of HOVENSA's Executive Committee pursuant to that letter agreement dated June 4, 2015 and currently serve as Manager of HOVENSA, L.L.C. on the terms set forth in the (i) *Order Granting Final Approval of Disclosure Statement and Confirming Chapter 11 Plan of Liquidation Pursuant to Chapter 11 of the Bankruptcy Code* (Case No. 1:15-bk-10003-MFW) (Bankr. D.V.I. 2015) [Docket No. 572] and (ii) *Debtor's Second Amended Plan of Liquidation Pursuant to Chapter 11 of the Bankruptcy Code* (Case No. 1:15-bk-10003-MFW (Bankr. D.V.I. 2015) [Docket No. 572-1].

As of June 30, 2019, HOVENSA, L.L.C. has taken the actions described in the table below in completion and satisfaction of the Consent Decree requirements identified therein.

CD ¶	CD Requirement	Activities Undertaken
<b><u>Sections V.A through V.E – FCCU</u></b>		
11	Limit NO <sub>x</sub> emissions from the FCCU to 20 ppmvd or less on a 365-day rolling average and 40 ppmvd or less on a 7-day rolling average, each at 0% O <sub>2</sub> .	NO <sub>x</sub> emission limits have not been exceeded.
12	Demonstrate compliance with FCCU NO <sub>x</sub> emission limits by installing, maintaining, and operating CEMS and performing RATAs once every three years.	Operated pre-existing CEMS during FCCU operation, maintained them, and performed RATAs when due.
13	Limit SO <sub>2</sub> emissions from the FCCU to 16 ppmvd or less on a 365-day rolling average and 25 ppmvd or less on a 7-day rolling average, each at 0% O <sub>2</sub> .	SO <sub>2</sub> emission limits have not been exceeded.
14	Demonstrate compliance with FCCU SO <sub>2</sub> emission limits by installing, maintaining, and operating CEMS and performing RATAs once every three years.	Operated pre-existing CEMS during FCCU operation, maintained them, and performed RATAs when due.
16	Submit FCCU PM stack test protocol specified in 40 C.F.R. § 60.106(b)(2) .	Protocol submitted on 8/23/2011.
18	Limit CO emissions from the FCCU to 500 ppmvd or less on a 1-hour block average basis corrected to 0% O <sub>2</sub> .	CO emission limit has not been exceeded.
21	Demonstrate compliance with FCCU CO emission limits by installing, maintaining, and operating CEMS and performing RATAs once every three years.	Operated pre-existing CEMS during FCCU operation, maintained them, and performed RATAs when due.
22	Comply with NSPS Subparts A and J for SO <sub>2</sub> and CO.	Emission limits have not been exceeded and CEMs operated during FCCU operation.
<b><u>Section V.F - NO<sub>x</sub> Emissions Reductions from Heaters, Boilers, Generating Turbines, and Compressor Engines</u></b>		
26	Install sufficient Qualifying Controls and apply for emission limits from the appropriate permitting authority sufficient to achieve 1,079 tpy NO <sub>x</sub> emissions reductions.  Submit a report to EPA showing how refinery satisfied requirement of Paragraphs 23 and 26.	Compressor IC engines shutdown and permits surrendered, per Para. 23.e; replaced with electric motors prior to Date of Lodging.  Report submitted 8/31/15, demonstrating compliance.
27	Install sufficient Qualifying Controls and apply for emission limits from the appropriate permitting authority sufficient to achieve 3,663 tpy NO <sub>x</sub> emissions reductions.	Permanent emissions unit shutdown and surrender of permits by letter, 2/28/17, per Para. 23.e.

CD #	CD Requirement	Activities Undertaken
	Submit a report to EPA showing how refinery satisfied requirement of Paragraphs 23 and 27.	Report submitted 10/27/17 demonstrating compliance and confirming shutdown and permit surrender application.
28	Install sufficient Qualifying Controls and apply for emission limits from the appropriate permitting authority sufficient to achieve 4,744 tpy NO <sub>x</sub> emissions reductions.  Submit a report to EPA showing how refinery satisfied requirement of Paragraphs 23 and 28.	Permanent emissions unit shutdown and surrender of permits by letter of 5/30/19, per Para. 23.e.  Report submitted 9/3/19 demonstrating compliance and confirming shutdown and permit surrender application.
29	Submit a detailed NO <sub>x</sub> Control Plan to EPA for review and comment and to DPNR.	Initial NO <sub>x</sub> control plan submitted 10/4/11.
29	Submit annual updates of NO <sub>x</sub> Control Plan to EPA and DPNR.	NO <sub>x</sub> control plan update submitted annually.
<b><u>Section V.G SO<sub>2</sub> Emissions Reductions from, and NSPS Applicability to, Heaters, Boilers and Generating Turbines</u></b>		
34	Applicability and compliance of Heaters, Boilers, and Other Fuel Gas Combustion Devices with NSPS Subparts A, J and/or Ja, as applicable.	H <sub>2</sub> S fuel gas concentration standard has not been exceeded.
35	H <sub>2</sub> S/SO <sub>2</sub> monitoring requirements of NSPS Subparts A and J or Ja, as applicable.	Operated CEMS during unit fuel gas combustion operations.
<b><u>Section V.H Sulfur in Fuel Restrictions for Oil Burning</u></b>		
37	Effective 30 days after Date of Lodging, no longer burn Fuel Oil greater than 0.55 wt % sulfur at any time or 0.50 wt % on a 365-day rolling average basis in any heater, boiler, or Generating Turbine.	Did not burn Fuel Oil in excess of specified concentrations in para. 37.
38	Switch the fuel supply for any units combusting Fuel Oil to a Fuel Oil with not greater than 0.3 wt % sulfur within one hour when (a) the hourly average winds blow from a 180 degree sector for at least 6 consecutive hours during a 24-hour block period, or any 12 non-consecutive hours during a 24-hour block period or (b) the meteorological station is inoperable for six consecutive hours.	Did not burn Fuel Oil with greater than 0.3 wt% sulfur.

CD ¶	CD Requirement	Activities Undertaken
39	Switch back to the higher sulfur content Fuel Oil in accordance with conditions at 39.a or b.	Did not burn Fuel Oil with greater than 0.3 wt% sulfur.
<b><u>Section V.I Sulfur Recovery Plants.</u></b>		
42	For East Side SRP, comply with applicable NSPS Subpart Ja provisions.	East Side SRP did not exceed applicable Ja emission standards.
42, 44.a	For West Side SRP, comply with applicable NSPS Subpart J/Ja provisions.	West Side SRP did not exceed applicable NSPS J or Ja emission standards. West Side SRP complied with NSPS J and converted to Ja compliance by 12/31/11.
43	Route or re-route all sulfur pit emissions so they are eliminated or controlled and included and monitored as part of the SRPs' emissions subject to the NSPS Subpart Ja limit for SO <sub>2</sub> or reduced sulfur compounds (40 C.F.R. § 60.102a(f)) for the East and West Side SRP sulfur pit emissions.	Control installed on 12/28/2011, routing all West Side sulfur pit emissions back to the SRP. Continued to comply with requirement for West Side SRP sulfur pits during unit operation.  East Side SRP not in operation on applicability date, 12/31/14. Did not exceed applicable NSPS Ja emission standards.
44.a	Install SO <sub>2</sub> CEMS on West Side incinerators.	Installation of CEMS completed 4Q 2010.
44.c	Monitor West Side SRP tail gas emissions points.	CEMS installed, RATA completed 6/11, monitoring and reporting continued while unit in operation.
45.a.	Submit compliance plan and schedule for installation of second East Side TGU to EPA and DPNR.	Compliance plan and schedule submitted 12/16/11.
45.b.ii	Complete an optimization study to minimize emissions of sulfur compounds and maximize sulfur recovery efficiencies at the East Side SRP meeting the requirements of Paragraph 46 and submit study to EPA.	Optimization study completed and submitted 12/2/11.
46.b	Incorporate results of optimization study into PMO Plan.	Results incorporated into PMO plan, submitted 12/7/11 (see 48.a.).
48.a.	Submit a "Preventative Maintenance Operation Plan" (PMO Plan) for SRU and SAR to EPA and DPNR.	Submitted PMO Plan 12/7/2011.
<b><u>Sections V.J through V.O – Flares</u></b>		
49	For listed Flaring Devices, comply with applicable requirements of NSPS Subpart Ja by dates listed in Appendix D.	Fuel gas standard not exceeded.
51	Comply with applicable monitoring requirements of NSPS Ja by 6/7/14 for Flare	Complied with applicable monitoring requirements as of 6/7/14 when combusting

CD ¶	CD Requirement	Activities Undertaken
	7.	fuel gas.
52	Submit a Compliance Certification to EPA that HP, LPG, LP, 2, and 3 Flaring Devices comply with the emission standards and monitoring requirements of Subparts J/Ja, specifying the compliance method for each respective Flaring Device.	Submitted certification on 7/7/16 (HP, LPG Flares).  Submitted certification on 7/11/18 (LP, 2 and 3 Flares).
58	Submit a corrective action report to minimize the likelihood of a recurrence of Root Cause of flaring event included in look-back analysis previously sent to EPA.	Corrective action report submitted 6/7/11.
59-61	Investigate (no later than 45 days post-incident) and take corrective actions for any Acid Gas Flaring Incidents, prepare report.	No Acid Gas Incidents.
59, 60, 61, 70	Investigate (no later than 45 days post-incident) and take corrective actions for any Tail Gas Flaring Incidents, prepare report.	Tail Gas Incidents investigated and reports prepared.
71	Submit semi-annual report that includes each Acid Gas Flaring Incident and Tail Gas Incident reports during relevant period.	Incident Reports submitted with semi-annual reports, last Incident Report submitted with July 2012 semiannual report.
72	For any Hydrocarbon Flaring Incidents, follow investigative, reporting and corrective action procedures as set forth in paragraphs 60 and 61.	Incident Reports submitted with semi-annual reports, last Incident Report submitted with January 2015 semiannual report.
72	Investigate (no later than 45 days post-incident) and take corrective actions for any Hydrocarbon Flaring Incidents.	Hydrocarbon Flaring Incidents investigated and reports prepared.
<b><u>Sections V.P through V.R – Benzene NESHAP, NSPS QQQ, and LDAR</u></b>		
79.a.	Complete Phase One Review and Verification of Refinery TAB and its compliance with the Benzene Waste NESHAP.  Submit BWON Compliance Review and Verification Report.	Completed Phase One Review and Verification 1/20/12.  Submitted report 3/22/12.
79.b.	Conduct any additional required sampling by EPA and submit amended BWON Compliance Review and Verification Report.	No samples requested.
80.a.	Amend TAB Reports (if necessary due to inaccuracies or not meeting requirements of 40 C.F.R. § 61.357(c)).	Amended TAB Report not necessary.
80.b.	Submit to EPA and DPNR compliance plan (if results of BWON Compliance Review	Compliance plan submitted, 9/14/12.

CD ¶	CD Requirement	Activities Undertaken
	and Verification Report identify any compliance issues).	
81	Conduct inspections in accordance with the three-tier system for control of vents associated with the Subpart FF wastewater collection system.	All required inspections completed.
82.a.	Complete BWON lab audit prior to conducting Phase One Review and Verification to analyze benzene waste NESHAP samples to ensure proper analytical and QA/QC procedures are followed.	Initial audit completed 1/26/12.
82.b.	Conduct audits for each lab continuing to perform BWON sample analyses every 2 years.	Subsequent audits completed 3Q 2013, 3Q 2015, and 3Q 2017.
83	Continue to use management of change procedures to review process information and construction projects to ensure all new benzene waste streams are included in waste stream inventory.	Used management of change procedures to review process information and construction projects.
84.a.	Complete development of SOPs for all control equipment used to comply with the benzene waste NESHAP.	Development of standard operating procedures for benzene stripper (only "control equipment" used) completed.
84.b.	Develop BWON training program.	Initial program completed.
	Submit to EPA.	Submitted 3/7/12.
85.a.	Submit a plan for quantifying waste/slop/off-spec oil movements for all benzene waste streams that are not controlled at the Refinery, along with schematics.	Plan and schematics submitted 1/26/12.
86	Submit benzene waste operations sampling plans designed to describe the sampling of benzene waste streams to EPA and DPNR.	Sampling plan submitted to EPA and DPNR 1/26/12.
88	Implement and continue to implement the sampling plan for benzene waste operations sampling plans at the required time.	Sampling plan implemented and streams monitored.
89.a	Upon determination that a sampling plan is no longer accurate, submit BWON sampling plan revisions to EPA and DPNR for approval.	Sampling Plan revised and submitted 6/29/12 to reflect idling of refinery.
90	Calculate a quarterly and projected annual uncontrolled benzene quantity.	Quarterly and projected annual uncontrolled benzene quantity calculated.

CD ¶	CD Requirement	Activities Undertaken
91	Submit calculations of uncontrolled benzene quantity releases with reports.	Submitted calculations of benzene quantity with quarterly Subpart FF reports.
93.a.iii	Conduct monitoring of API Separators 1, 2, & 3 or any new Subpart FF-regulated oil/water separators (as described in 93.a.iii. (1)-(3)).	Monitoring of in-service API Separators conducted.
95	Record and submit information pursuant to 40 C.F.R. § 61.357(d)(6) and (7) on sampling results, training, and laboratory audits.	Recorded and reported sampling results, TAB, training and lab audit results with quarterly Subpart FF reports.
98	Submit copies of reports, plans and certifications to EPA, EPA Region 2 and DPNR.	Reported sampling results, TAB, training and lab audit results in quarterly Subpart FF reports.
99	Prepare and submit compliance plan to EPA specifying projects necessary to bring the FCCU and Coker Drain Systems into compliance with 40 C.F.R. Subpart QQQ.	Compliance Plans submitted 12/16/11 and 1/16/2012.
99	Complete FCCU and Coker Drain Systems projects described above for compliance with 40 C.F.R. Subpart QQQ.	Projects submitted as part of 12/16/11 Compliance Plan reported as complete as of 6/30/11.  Projects submitted as part of 1/16/2012 Compliance Plan were field verified as complete.
102	Submit to EPA a plan and schedule for bringing Refinery into compliance with 40 C.F.R. Part 60, Subpart GGG and requirements of CD.	Plan and schedule submitted 4/25/11.
103	Develop and maintain written refinery-wide program for compliance with applicable LDAR regulations and requirements of CD.  Submit copy to EPA with next semi-annual report.	Initial Refinery-wide LDAR program of 10/26/11 superseded by Revision 1 effective 1/1/2012.  Revision 1 submitted with semi-annual LDAR report for 2nd semi-annual period of 2011.
105.a.	Develop and submit to EPA the LDAR training program.	LDAR training program submitted 3/7/12.
105.c.	Provide training on LDAR responsibility relevant to Refinery operations and maintenance personnel.	Initial training completed by 6/7/13 and three-year retraining completed through 12/31/16.
106.a.	Complete a refinery-wide third-party audit of compliance with LDAR Regulations and applicable sections of CD.	Initial audit completed by 1/26/12.



CD #	CD Requirement	Activities Undertaken
	Submit noncompliance report from third-party audit.	Report and compliance schedule submitted 2/15/12.
106.a.i	Submit to EPA that the Refinery is in compliance with LDAR Regulations.	Certification of compliance with LDAR Regulations submitted 6/7/12.
106.b.i	Retain independent contractor to perform 3rd party audit of LDAR program compliance with applicable LDAR Regulations and applicable CD requirements at least once every four years.	Audit completed 3/3/16.
106.b.ii	Conduct internal audits of the LDAR program compliance with applicable LDAR Regulations, by 1Q 2014 and at least once every four years thereafter.	Internal audits completed 1Q 2014, 3/12/18.
107	Implement all appropriate steps to correct areas of non-compliance identified in subsequent audits.  Submit results of subsequent audits to EPA.	Implementation of identified corrective actions to correct areas of non-compliance identified in 2016 third party audit included in 7/15/16 LDAR Semi-Annual Report. Implementation of corrective actions to correct areas of non-compliance identified in 2014 and 2018 internal audits included in 7/28/2014 and 7/18/18 LDAR Semi-Annual Report, respectively.  March 2016 third-party audit results submitted with 7/15/16 LDAR Semi-Annual Report. Internal audit results submitted with relevant LDAR Semi-Annual Report.
109	Utilize lower leak definitions for valves and pumps, as defined in 109.a. and 109.b.	Lower leak definitions were utilized beginning August 2012 and continued to be utilized.
111	Record, track, repair, and remonitor all leaks in excess of the internal leak definitions in Paragraph 109.	Complied with recording, tracking and repair requirements.
112.a.i	Perform external valve surveys in accordance with Appendix G.	Surveys conducted, beginning 7/26/12.
112.a.ii	Perform valve stuffing box condition surveys in accordance with Appendix G.	Surveys conducted, beginning 7/26/12.
112.b.	Repack or replace valves prior to or during process unit turnarounds or tank outages in accordance with Appendix G.	Repack/replace conducted, beginning 7/26/12.
112.c.	Ensure newly installed valves are fitted with proper packing or valve technology designed	Proper packing used, beginning 7/26/12.

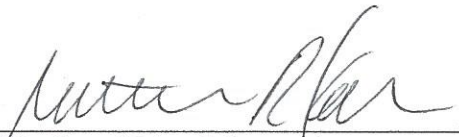


CD ¶	CD Requirement	Activities Undertaken
	to prevent leaks above 100ppm for a period of five years after installation.	
112.d.	Establish a comprehensive tracking database for Paragraph 112.d information (Valve Preventative Leak Maintenance Program).	Tracking database established, beginning 7/26/12.
112.e.	Analyze information in 112.d database every two years after effective date (Valve Preventative Leak Maintenance Program components) and report evaluation to EPA with semiannual report.	Analyses completed by 7/26/14 and subsequent analyses completed in 2016 and 2018, results of evaluation reported in LDAR Semi-Annual reports submitted 1/7/15, 1/20/17 and 1/30/19.
113.a.	Monitor pumps at lower leak definition on a monthly basis.	Monitoring conducted.
113.b.	Monitor valves according to the monitoring frequencies required by 40 C.F.R. §§ 60.482-7 and 60.483-2, except when monthly monitoring is required.	Monitoring conducted.
114	Record all LDAR monitoring and repair data in electronic database.	Database established and commenced recording data prior to Date of Lodging.
115	Collect electronic data during LDAR monitoring and perform appropriate data transfer.	System was in place before Date of Lodging and maintained, with uploading times consistent with Paragraph.
116	Develop procedure for QA/QC of LDAR-generated data.	Procedure developed.
117	Maintain program for personnel accountability and position for LDAR management.	LDAR accountability program and position for LDAR management maintained, beginning 1/26/11.
118	Implement tracking program for maintenance and (Management of Change) to ensure valves and pumps subject to LDAR Regulations and the CD are integrated into the LDAR program.	Database was in place and maintained, beginning 1/26/11.
119	Conduct all calibrations of LDAR monitoring equipment using methane as the calibration gas in accordance with 40 C.F.R. Part 60, EPA Reference Test Method 21.	Calibrations conducted using methane as calibration gas, beginning 6/7/11.
120	Conduct calibration drift assessments of LDAR monitoring equipment at the end of each monitoring shift (at a minimum).	Compliance maintained.
121	Perform monitoring and maintenance as specified in Paragraph 121 including extended maintenance and delayed repair of leaks.	Began implementing program prior to 1/26/12 and continued to implement, as required.

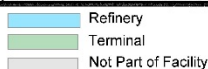
CD #	CD Requirement	Activities Undertaken
123	Include information in Paragraph 123 in applicable Semi-Annual LDAR Report.	All required LDAR reports were filed by Jan 30 and July 30 dates, and included the information required by Paragraph 123.
<b><u>Part VI – Permitting</u></b>		
124	Submit application to incorporate the emissions limits and standards of the CD effective upon Date of Entry of CD.	Submitted application to incorporate emission limits and standards effective upon Date of Entry, 8/2/11.
125	File applications to incorporate the emissions limits and standards effective after Date of Entry.	Submitted applications to incorporate emission limits and standards on 7/19/11 and 10/17/14, excluding (1) Ja compliance for East SRU (Para. 45.a); and (2) interim performance standard for East Beavon (Para. 45.b.iii).
<b><u>Part VIII - Additional Injunctive Relief</u></b>		
132.a.	Comply with depressurization level of 10 psig for the Coker Steam Vents.	Complied with depressurization level during coker operation, beginning Date of Entry.
132.b.	By December 31, 2012, comply with depressurization level of 2 psig for the Coker Steam Vents.	2 psig depressurization level not exceeded, on and after December 31, 2012.
133, App. H	West SRU 1&2/Beavon 1: comply with TRS (Interim) limits by Date of Entry; comply with TRS (Final) limits by 1/1/14.	Complied with Interim emission limits by Date of Entry. Final limits not exceeded.
133, App. H	TK-1071: NSPS subpart Kb monitoring, primary and secondary seal gap measurements.	Per NSPS Kb requirements to conduct gap testing when storing VOL, initial primary seal gap measurements and secondary seal gap measurements conducted per schedule during tank operations. Initial secondary seal inspection on 2/24/12. Tank not storing VOL after 2012.
133, App. H	TK-1663: NSPS subpart Kb monitoring primary and secondary seal gap measurements.	Per NSPS Kb requirements to conduct gap testing when storing VOL, initial primary seal gap measurements and secondary seal gap measurements conducted per schedule during tank operations. Initial secondary seal inspection on 11/23/11. Tank not storing VOL after 2Q 2012.
133, App. H	TK-8501: Kb recordkeeping (maintain documents showing tank is exempt).	Documentation maintained during tank operations.
133, App. H	Process Equipment located in specified units for fugitive VOC, HON minus Connectors.	LDAR program maintained during unit/equipment operation.

CD ¶	CD Requirement	Activities Undertaken
135	Comply with NSPS Subparts A and D for Boilers 5, 8, and 9 by July 31, 2012.	Boilers 5, 8, and 9 were not in operation on or after the applicability date for Subpart D of July 31, 2012. Did not exceed applicable NSPS emissions standard.
136	Comply with NSPS Subparts A and GG for Generating Turbines 1, 2, 3, 5 and 6 no later than 5 years from Date of Entry.	Emission standards not exceeded for Generating Turbines 1, 2, 3, 5 and 6. Additionally, Generating Turbines 1, 2, 3, and 6 permanently shut down and application to surrender permits submitted 2/28/17. Generating Turbine 5 permanently shut down and application to surrender permit submitted 5/30/19.
136	Comply with NSPS Subparts A and GG by Date of Entry (Generating Turbine 9).	Complied with NSPS subparts A and GG.
<b><u>Part X - Reporting and Recordkeeping</u></b>		
143	Submit semi-annual progress reports to EPA and DPNR.	First report submitted 1/30/12; subsequent reports submitted on semi-annual schedule.
144	Certification of semi-annual reports by HOVENSA.	All semi-annual reports submitted were certified.
<b><u>Part XI – Civil Penalty</u></b>		
145	Pay civil penalty to both the US and the USVI.	Penalty paid 7/5/11.

In accordance with Paragraph 231 of the above-referenced Consent Decree, I certify under penalty of law that this information was prepared under my direction or supervision by personnel qualified to properly gather and evaluate the information submitted. Based on my directions and after reasonable inquiry of the person(s) directly responsible of gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

  
\_\_\_\_\_  
Matthew Kahn, Manager  
HOVENSA, L.L.C.

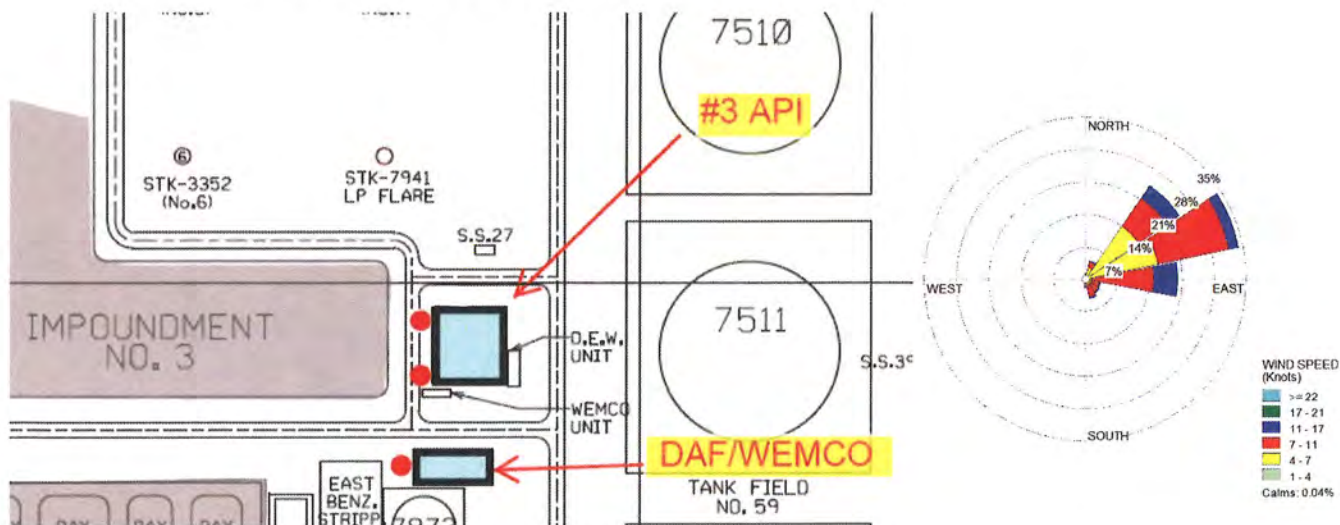
cc: Tom Hill (via electronic mail)  
Dan Harris, Esquire (via electronic mail)  
Brian Lever (via electronic mail)  
David Molloy, Esquire (via electronic mail)



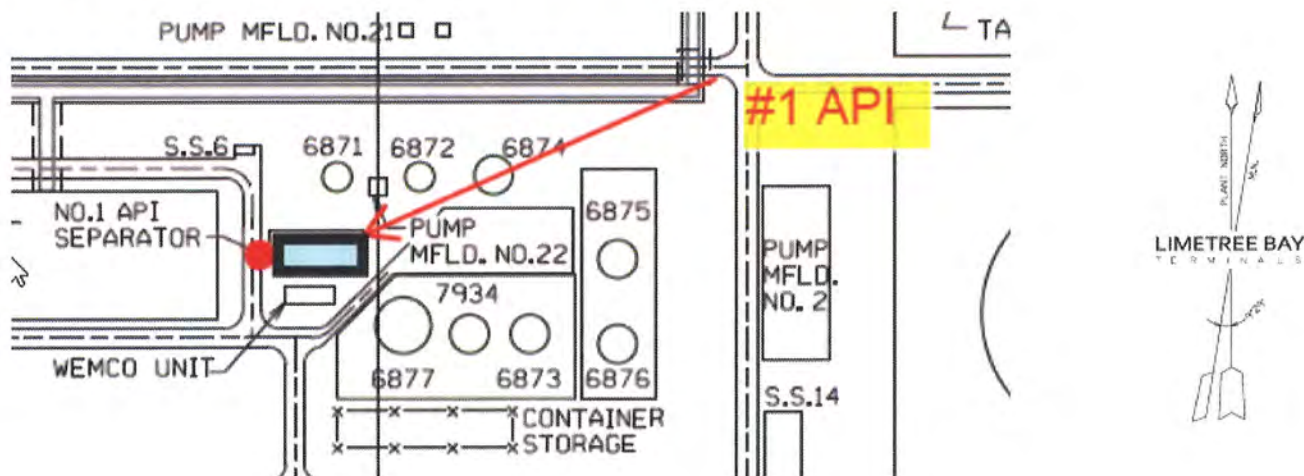


## APPENDIX S MAP OF H2S MONITORING LOCATIONS

### #3 API and DAF/WEMCO Units (East Side)



### #1 API (West Side)



● Approximate location of monitor(s)

*BtdL*